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ELEMENTS OF CONSTRUCTIVE PHILOSOPHY

BY

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TO THE
PAST AND PRESENT MEMBERS
OF THE PHILOSOPHICAL SOCIETY
IN
UNIVERSITY COLLEGE, CARDIFF,
WITH PLEASANT MEMORIES AND HEARTY GOOD WISHES.

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PREFACE

THIS book was undertaken more than a quarter of a century ago, and I have had it pretty constantly in mind during the period that has elapsed; but difficulties of various kinds—perhaps not all to be regretted—have delayed its production. My primary object in writing it has been to clear up my own ideas on a number of fundamental problems. On many of them I still feel a good deal of uncertainty, but I can scarcely hope that that will ever be wholly removed; and it is possible that the attempt that has here been made may be of some service to others, especially to those who are more nearly at the beginning of their studies. I have tried to meet the needs of such students by giving a considerable number of references to other books and articles in which particular topics are more fully discussed. In the course of the work I have sought to take account of all the important contributions that have been made to the subject, from whatever quarter they might proceed; but it is probable that there may be some degree of arbitrariness in my selection both of the problems to be considered and of the writers who have dealt with them. Believing as I do that some of the most fundamental problems are of interest to many who are not specialists in philosophy, I have endeavoured to avoid technicalities, as far as possible, and to give a considerable number of simple illustrations; and I have not hesitated, especially in the more speculative parts of the work, to refer to writers who cannot, in any strict sense, be described as philosophers. If this is an offence against the dignity of the subject, I must crave the indulgence of the more purely scientific reader.

It will be observed that my treatment has been a good deal influenced by the writings of those who are commonly referred to as the New Realists. They have undoubtedly

rendered a very valuable service in clearing away the last remains of the subjective bias by which modern philosophy, especially in our own country, has been so greatly perverted. It does not appear to me that their main contentions are in any way opposed to such an idealism as that of Plato ; and I doubt whether they are really opposed to that of Hegel, at least as interpreted by Edward Caird and Dr. Bosanquet. I think it is true, however, that almost all idealists have tended to express their meaning in language that lends itself too readily to a subjective interpretation. It has been one of my chief aims to guard against this tendency in my own statements ; but it is very possible that I may not have wholly succeeded.

It has always seemed to me to be very difficult to deal satisfactorily with any special problems in philosophy without considering their bearings upon all the others ; and I have thus been forced, somewhat against my inclination, to attempt a survey of the subject as a whole. The problems to which I have given most attention are those that bear upon ethical conceptions and those that are connected with the subject of infinity, especially in its application to time. The general problem of time seems to me to be the most difficult in the whole range of philosophy, and I can hardly expect that my method of dealing with it will commend itself to many minds ; but I trust it may at least help to stimulate others to more successful efforts. It is only by the co-operative thought of many that we may hope to reach the truth. The earlier parts of the book are introductory to the main subjects, and are somewhat more lightly handled. I have felt it to be necessary to deal, to some extent, with the fundamental conceptions of logic ; chiefly because they seem to me to have been a little obscured by a too psychological method of treatment. This applies, I think, even to the very careful and thorough work of Dr. Bosanquet, as well as to the thoughtful studies of Professor Dewey and his disciples. I have endeavoured to indicate the way in which the treatment of these conceptions is affected by a more realistic method of study. In connection with this I have laid special emphasis on the conception of objective order, which appears to me to be of the greatest importance. But my exposition of this, as well as of some

other aspects of the subject, is necessarily of a somewhat sketchy character. It could only be fully dealt with in a treatise specially devoted to logic.

In view of the close approximation that is made by some recent philosophers in this country to the leading conceptions of Oriental speculation, I have thought it desirable to take some account of the relations between these different modes of thought. In doing this I have been greatly helped by a number of interesting communications that I have received from V. Subramanya Iyer, of Bangalore. I take this opportunity of expressing to him my most hearty thanks.

To another friend, also in India, my former student, Mr. G. H. Geach, now Principal of the Training College at Peshawar, I am indebted for many useful and stimulating comments on several of the problems that are dealt with. What I owe to other writers on philosophical subjects is probably sufficiently apparent and sufficiently acknowledged in the course of the work.

My deepest thanks, however, are due to the Editor of the Library of Philosophy, Professor J. H. Muirhead, of Birmingham, for his most valuable encouragement and help, both while the work has been passing through the press and previously. He undertook the laborious task of reading it both before and after it appeared in proof, and his suggestions and criticisms have been of the greatest assistance. Whatever the defects of the book may be, they would have been very considerably greater without his generous co-operation.

It should be added that some portions of this book have already been printed in *Mind*, the *Encyclopædia of Religion and Ethics*, and the *Proceedings of the Aristotelian Society*. I have to thank the respective Editors for permission to reproduce the material, which has been considerably altered.

Circumstances connected with the war have made it difficult for me to introduce as many improvements as I could have wished while the book was passing through the press; but I am conscious that it has many defects which it would hardly have been possible, in any case, to remove completely.

August, 1917.

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INTRODUCTION

WHAT IS PHILOSOPHY?

1. *General Definition.*—To attempt to define Philosophy would be a somewhat futile undertaking. The term, like so many others, has been and still is used in a variety of senses, wider and narrower. We must content ourselves here with a brief explanation of the sense in which it seems most convenient to understand it, having regard both to general usage and to the special purpose of the present book. As often happens, the original meaning of the name is not without significance, and may at least furnish us with a useful starting-point. Love of wisdom, or devotion to the pursuit of wisdom, seems to have been understood from the outset—whoever may have been the first to use the term in this sense [1]—as implying a certain distinction, on the one hand, from the claim to the possession of wisdom, and, on the other hand, from the cultivation of special forms of knowledge and skill. Even in the Homeric poems we find a contrast drawn between skill in the particular arts of life and that general insight into its most important problems which appears to be what we most properly understand by wisdom. If we ask more precisely what is to be understood by wisdom, we find that it is commonly taken to include certain kinds of knowledge, certain habits of action, and perhaps also certain dispositions of feeling; and the term "philosophy" has been frequently employed in a sense that corresponds closely to this usage. The inclusion of action and feeling, as well as a certain kind of knowledge, in the implications of the word is probably due, to a large extent, to the influence of the Stoics, and especially the Roman Stoics, whose "wise man" was in general more eager for the cultivation of character and the control of passion and emotion than for the advancement of

[1] Pythagoras is generally supposed to have been the first who used it in this way. Cicero, who is perhaps not a very reliable authority, ascribes it to him.

science ; but the usage can be traced, in some degree, to Socrates and Plato, and probably a good deal farther back.[1] In popular discourse, to be philosophical often means little more than to have the feelings properly controlled by reason. Sometimes, indeed, it may even mean a kind of subjugation of the feelings that can hardly be described as rational. In technical treatises, however, philosophy is generally understood to mean a certain kind of more or less completely systematized knowledge or science ; and it may be well to make some attempt to determine at this point what that kind of knowledge is, though on the whole it is only through the actual work of philosophizing that we can hope to understand its essential nature.

The kind of knowledge that we call scientific seems to have been acquired from the outset, and still is acquired, by two somewhat different types of people—on the one hand, those who pursue it for the purpose of employing it to bring about certain definite results other than knowledge itself, and, on the other hand, those who value knowledge for its own sake, or at least whose interest in results is in those of a general and often remote kind, rather than in any particular things that can be immediately achieved. It is probably true that in early times there was a greater preponderance of the former type of inquirer than there is in our own time ; and those of the latter type formed, in consequence, a more select and homogeneous group. They tended to be all classed together as "wise men" or "lovers of wisdom," though the former at least of these designations may sometimes have been applied to people who belonged rather to the other type. At such a stage the distinction between philosophy and other kinds of theoretical knowledge could hardly be said to exist. The only important distinction was that between the theoretical sciences and the practical arts, and even this was not very finely drawn. Hence it is customary to reckon many early thinkers as philosophers whose main interests were rather in

[1] With the Pythagoreans themselves philosophy seems to have been thought of as a way of life, no less than a way of thought. According to Liddell and Scott, however, it was only in the writings of the early Christians that this use of the term became definitely established. But, of course, they were largely influenced by the Stoics, especially Seneca. See Professor E. V. Arnold's *Roman Stoicism*, especially chapters xvi and xvii.

what we should now call mathematics, physics, chemistry, biology, astronomy, economics, or philology. The distinction between such sciences and philosophy is of later growth ; and it can hardly be said that even now the distinction has been quite definitely established. Hegel cast ridicule on the English usage which permitted such phrases as "dyeing the hair on philosophical principles," "philosophical instruments," and "the philosophical theory of free trade"; and such a usage has now very largely disappeared among us, though we still have "Philosophical Transactions" and Chairs of "Natural Philosophy," where the term is used to describe work in the department of physics or in that of some of the other sciences of nature. But even when such special sciences have been excluded, it is not altogether easy to determine what properly belongs to the domain of philosophy. It is still generally regarded as including a number of special studies, such as Logic, Psychology, Metaphysics, Ethics, and Æsthetics ; while some others, such as Sociology, Politics, Economics, and Pædagogics, are thought of as lying on its borders. Often, indeed, it is believed to consist simply in the sum of the first four or five of these studies ; while at other times it tends to be identified more particularly with metaphysics and ethics, or even to be confined to the former of these. What the exact claim of any of these sciences is to be regarded as specially philosophical, it would not be altogether easy to say. Sometimes they are referred to as "subject-sciences," in contrast with those that are concerned with the objective world ; but it is not evident that logic or even metaphysics have much more to do with the subject than mathematics or physiology. What seems to be true is rather that the special sciences have been gradually separated off from philosophy, the last to leave being in general those whose exact province it is most difficult to determine and whose fundamental principles are most in need of discussion. The mathematical sciences found their feet at a comparatively early stage ; and, though from time to time they have come into close contact with philosophy, their province has been generally recognized as distinct. The more purely observational or experimental sciences have also been separated off from a comparatively early stage. Those that call, like physics, for careful analysis

of general principles have been later in gaining recognition as separate sciences ; and some other subjects, such as those that have already been referred to, continue to struggle, more or less acquiescently, under the ægis of philosophy. Reflection on this line of development leads us to inquire what would be left for philosophy if all the special subjects of study were established on as independent a basis as that which has been gained by mathematics or astronomy. A partial answer is found in the fact that the special sciences are not altogether independent, and indeed that their interdependence becomes more apparent as they develop. The biological sciences could not make much progress without chemistry ; chemistry needs the help of physics ; astronomy calls for the assistance of them both ; and physics and astronomy are in the highest degree dependent on mathematics. It would seem, therefore, that some study of the co-ordination of the sciences and of the general principles on which they rest is called for, in addition to the special sciences themselves. This is no doubt even more emphatically true of those sciences that are commonly classed as philosophical than of those that are concerned with particular departments of what is called nature. Thus a provisional answer may be given to the question that has been suggested by saying that, even if each of the special departments of knowledge were established on an independent basis, there would still be a place left for the study of the general principles upon which they rest and their points of contact with one another.

But there is another consideration that has now to be taken into account. We have already noticed that wisdom is generally regarded as something more than knowledge, and that philosophy, as the pursuit of wisdom, has tended to be understood in a similarly extended meaning. The reason of this is not hard to see. It is probably true to say that all knowledge was at first valued for the guidance of action and, in a less degree, for the satisfaction of feeling ; and it continues to be valued, though in a more indirect way, for the same reasons. The saying that "knowledge is power" —specially associated with the names of Bacon and Hobbes— has sometimes been pressed in a rather narrow way, as if

knowledge were only to be valued for its immediate practical results. Macaulay commended the philosophy of Bacon, in this sense, as contrasted with that of Plato. Against any such contention it is rightly urged that knowledge is valued for its own sake. At the same time, the view that knowledge is for the sake of knowledge, like the similar view that art is for the sake of art, is subject to some qualification. Some kinds of knowledge are valued more than others, just as some kinds of art are valued more than others; and the reason is not simply the degree in which the one is cognitive and the other artistic. Both are valued, to some extent, on account of their general bearings on life. These bearings are, however, often of a very indirect kind; and those who are pursuing knowledge or art are generally well advised to forget, or at least not to think in any very definite way about, any other object than that of gaining knowledge or producing a work of art. But there are limits to such forgetfulness; and these appear, in general, most clearly just when the nature of the work is most unlimited. It is chiefly in the pursuit of the smaller details of knowledge and the more trivial forms of art that it is well not to raise the question whether the objects have any use beyond the satisfaction of discovering or creating them. The larger gains of knowledge and the larger creations of art have nearly always a very obvious value in the help that they give or the light that they throw upon the general conduct of life. Now, the kind of knowledge at which philosophy aims, however imperfectly it may be achieved, belongs essentially to this larger type. It is not with the ascertainment of particular facts that it is concerned, but with the gaining of a true insight into the general structure of the universe and man's relations to it. Such knowledge is difficult to gain; and the results of the pursuit of it, regarded simply as knowledge, must often be described as very meagre and imperfect. Its value is often to be found, not so much in any actual discovery that is made as in the general outlook upon human life that is gained in its pursuit.

2. *Relations of Philosophy to Poetry and Religion.*—It is for this reason that philosophy is sometimes specially

associated with poetry and religion. The great religions of the world express, in general, the efforts of the human spirit to grasp the nature of the universe, to understand man's true place in it, to realize the kind of conduct and the general attitude of thought and feeling that befits that place, and to find the most suitable means for the cultivation of such modes of thought, feeling, and action. The knowledge that is summed up in creeds is often vague, figurative, and imperfect. Its value is rather in what it suggests than in what it definitely conveys. But it is one of the means by which men gain an outlook on life, by which they can feel that they are citizens of the universe, not aliens or outlaws in the world in which they have to carry on their being. The higher kinds of poetry also serve a similar purpose. They do not, like religion, crystallize their insight into definite creeds, or apply it directly to the guidance of conduct. But they also try, in their own special way, to enable us to "see life steadily and see it whole," in its complex relations to the universe that we inhabit. They may, then, be said to aim at the same kind of insight as that which philosophy seeks to gain.

But philosophy pursues this kind of insight in a different way. The suggestions both of poetry and of religion are commonly described by the term "inspiration." They are felt to be true, rather than definitely thought out or rigorously established. And, in being thus conveyed and accepted, they are well within their rights.

> One impulse from a vernal wood
> May teach you more of man,
> Of moral evil and of good,
> Than all the sages can.

"Wisdom is justified of all her children"; but the "sages" also have their place. They seek for definite knowledge and exact methods of proof. They seek to know, as we say, in a "scientific" way. They suspect everything that is only a vague suggestion as being probably only half true; and they are anxious to know the whole truth, in so far as it is discoverable. But the truth that they seek is the same kind of truth as that which is aimed at by the higher forms of poetry and religion. It is truth about the general structure

of the universe and man's relations to it; and hence it is a kind of truth that has a very direct bearing upon life. It is truth about what man is, and about the way in which he ought to act and feel.

It should, no doubt, be added that, just because poetry, religion, and philosophy, in their highest expressions, are essentially aiming at the same thing in different ways, they are rather apt to come into conflict with one another. Plato refers, in the *Republic*,[1] to an "old feud between poetry and philosophy." It would seem, however, that the feud to which he refers was primarily one between the religious ideas expressed in the early Greek poetry and the somewhat materialistic tendencies of the scientific thinkers of Greece, before any very definite distinction had been drawn between science and philosophy. In the writings of Plato himself one is seldom conscious of any such antagonism; and there are probably few modern poets and few modern religious teachers who would not confess that they owe some of their deepest convictions and happiest inspirations to the writings of Plato. And probably what they owe to him unconsciously is even greater than what they are aware of. How far there is any ultimate antagonism between poetry, religion, and philosophy, will, it is hoped, become more apparent as we proceed.

3. *Relations of Philosophy to the Special Sciences.*—If we accept this view of the general nature of philosophy, we shall be better able to understand how it is related to the particular sciences, including those that are commonly regarded as specially philosophical sciences. The distinctions between the sciences are, to a certain extent, artificial. All knowledge is knowledge about the universe; but the universe is so vast that we can only learn about it bit by bit. And the bits that it is found convenient to break off are not all of the same size. Some of the sciences, such as geology,

[1] Book X. Many writers on Plato have dealt instructively with this subject. Perhaps the books by J. Adam on *The Religious Teachers of Greece* (especially Lecture I, but also pp. 401–4) and by Professor J. A. Stewart on *The Myths of Plato* may be more particularly referred to. It seems probable that the "feud" was one of which Plato was conscious within himself, as no doubt many people at the present time are.

are concerned with a definitely limited range of objects: others, such as mathematics, deal with principles that can be applied to almost any object. Again, some of them, such as astronomy, have to do with objects that have very little direct bearing upon the conduct of human life: others, such as physiology or economics, are much more directly concerned with it. Now, it would seem that, in general, the wider the range of any subject is, and the more directly it bears upon life, the more nearly is it allied to philosophy. Hence some sciences are rightly regarded as more philosophical than others. Yet it is probably desirable to distinguish philosophy even from those sciences that are most closely related to it; and it will be well to try to make this distinction clear. The subjects that are most commonly regarded as specially philosophical are Psychology, Logic, Ethics, and Metaphysics; and it may suffice for our present purpose to make a few remarks about these.

4. *Relations to Psychology.*—The consideration of psychology is specially valuable as an indication of the distinction between a particular science and philosophy. Psychology has a definite subject-matter, just as physics and mathematics have. In each case there are some problems involved that bear upon the general structure of the universe. In mathematics there are the problems of space and of the general significance of number and quantity. In physics there are the problems of matter and energy. In psychology there are the general problems of the relations between mind and body, the nature and validity of various forms of cognition, the significance of activity and feeling. What entitles us to regard psychology as a more definitely philosophical science than mathematics or physics is, on the one hand, that the fundamental problems that arise in it are more numerous, that they raise on the whole issues of a more far-reaching kind, that the whole treatment of the subject is more directly dependent on their solution; and, on the other hand, that it has a more distinct bearing on the nature and conduct of human life. For these reasons, it can hardly be separated altogether from philosophy. Yet the detailed facts with which it is concerned—e.g. the analysis of the emotions, the

different stages of mental development, the growth of the apprehension of space and time, the inter-actions of the various elements in conscious life—form the subject-matter of a science as definitely marked off as physics, and not much more intimately concerned with those larger problems that belong properly to philosophy.[1]

5. *Relations to Logic.*—The case of logic is different. Its exact province is not as clearly defined. It is sometimes treated as if it were concerned with the general theory of knowledge. The logical and the psychological treatments of the theory of judgment, and some other questions that arise in its study, are not always definitely distinguished. Sometimes it is regarded as being mainly concerned with the various methods by which truth is sought, and sometimes as having to do mainly with the implications of conceptions and judgments. The last is probably the most definite province that can be assigned to it. It includes all that is commonly dealt with in treatises on the subject, with the exception of scientific methods and of those problems that belong pretty obviously to psychology or the general theory of knowledge. Methodology is perhaps best regarded as one of its pendants. Now, the general problem of implication seems to be clearly philosophical. The discussion, for instance, in Hegel's *Logic* of the ways in which such conceptions as those of Being, Number, Substance, etc., imply others, and the exhibition of the whole network of implications that is there given as being involved in our conceptual view of the world, are in a high degree philosophical. Such a treatment forms the basis for a general theory of the universe. Such a consideration of ultimate conceptions, however, is perhaps rather to be described as metaphysical than as logical, in the more specific sense of the term. The implications of ordinary discourse and of the terms used in the particular sciences can be dealt with in an instructive way without raising issues of so far-reaching a character; and to do this seems to be the appropriate province of logic, so far as it can be regarded as a special science. On the whole, however, it must be recognized that such a science

[1] For further remarks on Psychology, see Book II, Chapter VI.

would be even harder to separate from philosophy than psychology is.[1]

6. *Relations to Ethics.*—The case of ethics is, in the main, similar to that of logic. These two subjects are frequently grouped along with æsthetics as being, in a special sense, normative. What is meant by this is that they are concerned with certain large guiding conceptions. Logic has to do with the validity of implications; and ethics and æsthetics with the types of value that are expressed by the terms Good and Beautiful. How far it is right to regard these three subjects as marked off in this way from other sciences, we cannot at present discuss. But, at any rate, it seems clear that they are more directly concerned with the consideration of ideal standards than other sciences are. Now, just as the general problem of implication belongs to philosophy, it is no less apparent that the general consideration of the significance of the conceptions of goodness and beauty is of a philosophical character. Ethics may, indeed, be said to be the most definitely philosophical of the three. This would of course be more particularly the case if we were to hold, with Plato, that the Good is the most fundamental conception for the interpretation of the universe. But, without at present raising that question, it seems clear at least that the study of ethics has a more direct bearing than either of the others on the general conduct of life; and is, in that sense, more philosophical, in the sense in which we are here interpreting the term. Here also, however, it is true that a number of detailed problems arise in the study of the subject which make it convenient to treat it as a special science, and which can to some extent be discussed without definitely deciding those larger issues that belong properly to philosophy. But the greater part of the study of ethics must be regarded as distinctly philosophical.[2]

7. *Relations to Metaphysics.*—And now, what are we to say of metaphysics? Is it also to be regarded as a special

[1] The general nature of Logic is dealt with in subsequent chapters, especially Book I, Chapters V and VI.

[2] On the general foundations of Ethics, see Book II, especially Chapters VIII and IX.

science, or is it only another name for philosophy in general? It would seem that the special problems of metaphysics are those relating to the general nature of knowledge, the fundamental conceptions that are involved in it, and especially the theory of reality. All these problems are philosophical. Yet, if the meaning of philosophy has been rightly indicated, there appears to be a certain distinction between the two subjects. Many of the problems of metaphysics can be discussed without forming any definite theory of the nature of the universe as a whole or of man's place in it. It might, indeed, be held that philosophy, as here understood, forms the last part of metaphysics. It might be said that we have to deal, in metaphysics, first of all with the general problem of knowledge and its fundamental conceptions, then with the special problem of reality in its various applications, and finally with the structure of the universe as a whole and man's relations to it. But metaphysics tends to be regarded as more particularly concerned with the second of these problems. There are some grounds for regarding the general theory of knowledge as a distinct subject. Kant, who despaired of metaphysics, did not despair of the doctrine of knowledge. There are some grounds also for regarding philosophy, as here understood, as being distinguishable from metaphysics. There have been philosophers who could hardly be called metaphysicians, such as Socrates and Comte. It would hardly be possible to find a metaphysician who was not a philosopher; yet a pure dialectician, such as Zeno, might be said to approximate to this anomaly.[1]

[1] The term Metaphysics does not, by itself, convey any definite meaning. Originally it referred simply to the order of some of the writings of Aristotle. Afterwards it was taken to denote those considerations that follow naturally upon the treatment of the physical sciences. As studied in modern times, especially in Germany, it includes the general doctrine of knowledge, commonly known as Epistemology or *Erkenntnistheorie*; the discussion of fundamental concepts, as in Kant's Transcendental Logic, the Logic of Hegel, Meinong's *Gegenstandstheorie*, or Driesch's *Ordnungslehre*; the consideration of the meaning of Truth and Reality, and especially of the distinction between Appearance and Reality, as in Mr. Bradley's *Appearance and Reality* and *Essays on Truth and Reality*; and the attempt to deal with the general structure of the Universe. Many of the following chapters are metaphysical, especially the later ones in Book I, the earlier in Book II, and the whole of Book III. On the general problems of Metaphysics, reference may be made to Professor Taylor's *Elements of Metaphysics* and to the article "Metaphysics" by Edward Caird in the ninth edition of the *Encyclopædia Britannica* (reprinted in his

These remarks may at least serve to indicate the sense in which philosophy is here understood. If it is not the sense in which it is always taken, it is at least one that includes most of what is generally understood by the term. It includes, for instance, all the work of Plato, who is generally recognized as the most representative among philosophers. Most of the work of Aristotle is concerned with particular sciences, including those that are commonly grouped as philosophical, but including also several that are not so regarded. In the work of Plato also there are parts that may be said to be specially psychological, specially logical, specially metaphysical, specially ethical, specially cosmological, specially political, specially educational ; but, with the possible exceptions of the *Parmenides* and the *Laws*, and perhaps one or two others, it can hardly be said that he is ever concerned exclusively with any of these subjects. His subject is nearly always the universe and man's place in it, and so he is nearly always dealing with philosophy as here understood. The same is on the whole true of another typical philosopher, Spinoza. He called his chief work *Ethica* ; but it is not concerned with ethics, in the sense in which ethics is a special science. It also, like most of the work of Plato, is concerned with the universe and man's place in it. This is not so conspicuously true of many other philosophers. Many are more akin to Aristotle than to Plato. But Aristotle, though philosophical in comprehensiveness and depth, is on the whole a type of the scientific man, rather than of the philosopher. This distinction is one that is pretty clearly marked, and indeed pretty generally recognized. The use of the term " philosophy " that is here suggested would thus appear to be well supported.

8. *General Aims of Philosophy.*—Regarded in the way that has now been indicated, philosophy has to take account of the general results of the investigations of all the other sciences, but especially of those sciences that are concerned

Essays in Philosophy). Philosophy is sometimes understood to mean simply the discussion of purely metaphysical problems. The term seems to be so used, for instance, in Mr. Russell's *Problems of Philosophy* and in his book on *Our Knowledge of the External World.* Thus regarded, philosophy becomes one of the special sciences, or perhaps even two or three distinguishable sciences.

with the most fundamental issues ; and, on the basis of these results, it is its special task to endeavour to construct a general theory of the universe, and especially of the place of human life in it. In this enterprise, it is mainly dependent on metaphysics, but to a considerable extent also on logic and psychology ; while, on the other hand, ethics and æsthetics are largely dependent on it.

Philosophy, thus conceived, is certainly in some respects the most difficult of all subjects to deal with in an adequate way ; for it is nothing if not complete, and yet it can hardly be completed without a considerable degree of completion in many other subjects as well. To some extent, no doubt, there is a similar difficulty in other subjects—e.g. in astronomy ; but it is certainly most acute in the case of philosophy. Other subjects, even when they are very imperfectly developed, have at least accumulated a certain amount of material ; but the accumulation of material could hardly be of any value for philosophy. It is chiefly for this reason that philosophy is naturally studied in a historical way. There is, no doubt, some interest in the historical study of all the sciences. The methods by which discoveries have been made throw light on the possibilities of future advance ; and there is often a personal interest in the labours of scientific workers. But, on the whole, it is true in most subjects that the results can be seen without their historical setting ; and this is true of the philosophical sciences almost as fully as of any others. But it is not in the same degree true of philosophy, in the sense in which the term is here understood. This is one of the respects in which philosophy has to be classed with poetry, rather than with the sciences. As poetry is only to be found in the works of the poets, so philosophy is only to be found in those of the philosophers. It is not a result that can be extracted and stored : it is rather a fine essence that evaporates as soon as it is separated from the process by which it is produced. Hence there is a certain individuality in philosophic work. Philosophy means the insight of Plato or Aristotle, Spinoza or Hegel, into the general structure of the universe and the significance of human life ; and it can only be properly appreciated in relation to the whole way of thinking of these individuals. This is not

really a defect in it. It is involved in the essential nature of the subject. Hegel said that the complaint that there is no philosophy, but only philosophies, is like the complaint that there is no fruit, but only fruits. Apples, pears, and plums are all fruit, though they are all somewhat different. This, however, is not an analogy that should be pressed too far. Philosophic fruits are not altogether isolated. Philosophers take account of one another—as, indeed, poets and artists also do—and the subject grows through their interactions. But it is mainly in this way that it develops. Other subjects may be built up like a house, stone upon stone. Philosophy can only grow like a tree, or like a state ; and perhaps the ideal philosophy, like the ideal state, must always remain a Utopia. But yet it moves.

It is my object in what follows to try to indicate what appear to be the main problems that are definitely philosophical, and the methods by which they can be investigated with most hope of success. In doing this, I shall consider myself entitled to make use of any results that have been achieved by other sciences, and to deal with problems that may belong properly to other sciences, whenever this appears to be necessary for the purpose in view. There are no absolute boundaries in human knowledge. The little god Terminus is not here in power. At the same time, it is of considerable importance that we should proceed in an orderly manner. Hence it seems desirable to consider, first of all, what is the proper starting-point in philosophy.[1]

[1] Further remarks on the general aims and value of philosophy will be found in the concluding chapter ; and those who wish to pursue the subject farther may be referred to such works as that of Professor Höffding on *The Problems of Philosophy* the *Outlines of Philosophy* by Professor J. Watson, or the Introductions to Philosophy by Paulsen, Külpe, and others. Mr. Russell, in *The Problems of Philosophy*, deals with the subject in a more limited way. He seems practically to identify it with what Aristotle called *first* philosophy, i.e. with pure metaphysics ; but he would not agree with Aristotle's identification of this with theology.

BOOK I

GENERAL PROBLEMS OF KNOWLEDGE—FROM DOUBT TO BELIEF

CHAPTER I

HOW TO BEGIN

1. *Difficulty in making a Beginning.*—Beginnings are proverbially hard ; and it is obvious that there must be a special difficulty in opening up a subject that aims at nothing less than insight into the general structure of the universe. But we are not without guidance from methods that have been adopted in the past. Probably the most enlightening attempts in this direction are those that were made by Descartes and by Hegel respectively. The Hegelian philosophy sets out with the simple conception of Being, and proceeds to deduce dialectically from this the other fundamental conceptions that are involved in our knowledge of the world. The value of this dialectic method we cannot at present consider. It seems clear, however, that the adoption of such a method requires a good deal of previous justification. It might even be said that it can only be justified by a consideration of the whole course of development of philosophic thought up to the time of Hegel. The starting-point of Descartes is very much simpler ; and some discussion of it may help us to get into the heart of our subject.[1]

2. *Doubt as a Starting-point. De omnibus dubitandum est.*—It is of course true in philosophy, as in other things, that progress in knowledge depends on our doubting the validity or sufficiency of what is already known. To realize our ignorance is the first step towards knowledge ; and, the more comprehensive is the kind of knowledge that we seek, the greater must be our initial consciousness of ignorance. In

[1] On the relation between Hegel's starting-point and that of Descartes, reference may be made to Dr. McTaggart's *Studies in Hegelian Dialectic*, p. 21 ; though I believe the relation is not quite as close as he seems to suggest. See also below, Book I, Chapter X, and Book II, Chapter I.

setting out to know about the universe, we must at first be in uncertainty whether there is any universe that is or can be known. A certain scepticism or agnosticism must be the beginning of philosophy, though we may hope that it need not be its end. Descartes did a great service in emphasizing this. At the same time, there is some exaggeration in the extreme emphasis that Descartes laid upon doubt; just as there was also some exaggeration—perhaps in both cases an intentional exaggeration—in the profession of ignorance on the part of Socrates. To know one's own ignorance is already to know a good deal; and to be sure what can be doubted is to have a pretty large assurance. Doubt, as is now generally recognized, is a form of belief.[1] It is the belief that some assertion is not certainly true; and this belief, like any other, may turn out to be erroneous. To determine the legitimacy of any form of doubt, we must have some criterion of certainty, some ideal of perfect knowledge. Some forms of scepticism and agnosticism are distinctly dogmatic: *Ephecticus acatalepsian dogmatizavit.* Accordingly, we find that the attitude of Descartes was conditioned by his ideal of knowledge, just as that of Socrates was; and in both cases, it would seem, the ideal was of a somewhat mathematical type. Descartes at least sought to have the same kind of certainty with regard to the fundamental problems of reality that he might have with regard to a simple mathematical proposition, such as that $2 + 2 = 4$, or that a three-sided figure has three angles. Whatever is

[1] Mill, in his *Examination of Sir William Hamilton* (p. 133), denied this; contending that doubt is a purely negative attitude. But it seems clear that doubt is not properly regarded as meaning simply abstinence from belief. We may apprehend the meaning of a proposition, such as that Sir Philip Francis was "Junius," or that there are inhabitants on the planet Mars, without either believing, disbelieving, or doubting it. Our attitude is then a quite negative or colourless one, so far as belief is concerned. There may be an absence of belief, just as there may be an absence of colour; but, just as grey is not absence of light experience, so doubt is not absence of the believing attitude. It arises when we have enough interest in a suggested judgment to lead us to wish to know whether it is to be believed or disbelieved, but have not sufficient ground for determining whether it is to be believed or disbelieved. Similarly, between the attitudes of choosing or rejecting a particular line of action, there is the attitude of hesitancy, which is different from the purely negative one of indifference. The man who is in doubt whether to vote for or against a motion is in a different position from one who does not care to vote at all.

not evident in this way, is to be treated as doubtful, or even provisionally set aside as false. Now, one may doubt the validity of such a doubt. That red is different from blue, is no more doubtful than that $2 + 2 = 4$; but it is a truth of a different kind, and rests on a different kind of evidence. It is too sweeping to set aside everything that is not clear in the same sense in which a mathematical proposition is clear; and the whole procedure of Descartes was somewhat vitiated by this assumption.

It is noteworthy that the theoretical doubt of Descartes —perhaps again not unlike that of Socrates—was associated with a certain absence of doubt in matters of practice. This was partly of the nature of a temporary expedient; but it had also a deeper significance. As a temporary expedient, it is of course little more than a dictate of common sense. It is no doubt true on the whole that we must eat bread and drink water, and even pay our taxes, however uncertain we may be about the composition of the former or the justice of the latter, or the essential value of any of them; whereas we need not accept mathematical propositions unless and until they can be rigorously proved. But the pragmatists have done some service in urging that the distinction between theory and practice is not of so sharp a kind as this might seem to imply. Even with bread and water, so long as we are uncertain about their composition, it is well to be sparing in their use; and if the principles of taxation are not clear, it is at least open to us to grumble. On the other hand, it would be somewhat absurd to doubt that there was such a person as Napoleon, though we might find it hard to give any rigorous proof of his existence. Beliefs, whether of a purely theoretical kind or of the kind that serves as a foundation for action, have often to be accepted in a tentative way; and this may be true even about beliefs with regard to the universe. They should no doubt, in that case, be somewhat lightly held; and we should try to find some firmer foundation for them. But it would be rash to assume that we can find a method that will bring us at once to any full assurance; and, short of this, it would seem to be unwise to regard every opinion as equally doubtful. It seems right to recognize at least that there are degrees of belief. But this is a

question that we shall have to discuss later.[1] In the meantime, we have only to note that Descartes, at any rate, guided by a quasi-mathematical method, was eager to proceed at once to some ultimate certainties about the universe. It is almost inevitable that this should be a besetting sin in philosophy. The earliest thinkers among the Greeks fixed on certain principles, such as water or air, or, at a later time, permanence or change or number; and sought to find the key to everything by means of these conceptions. The doubt of Socrates was largely occasioned by their haste. Others, in later times, have been hardly less hasty in their assumption of principles; and it can hardly be denied that, in modern times, Descartes was one of the first offenders in this direction. His extreme doubt passed rather suddenly to an extreme dogmatism; and we have now to notice what was the foundation of his constructive effort.

3. *Consciousness as the First Certainty.—Cogito ergo sum.* This is the statement that we have to try to interpret. The general meaning of it is obvious enough. What Descartes found was that, however far he might press his doubts, it was at least impossible for him to doubt that he doubted; and, as soon as I am certain that I doubt, I am certain also that I who doubt exist. The point is that this is a truth which I am bound to entertain, not merely with a certain degree of belief, but with the same kind of absolute certainty as that which belongs to the most simple and self-evident of mathematical propositions. Now, it is of great importance to see quite clearly what it is that is, in this absolute sense, certain. It certainly seems obvious that I cannot doubt the general fact of my individual cognition—the fact that some object is apprehended by some being that I refer to as "I." But Descartes at once proceeds farther to the statement that this "I" exists as a "thinking thing," which persists, which is more clearly and certainly apprehended than anything else, and which may consequently be taken as the basis for a general doctrine of reality. It is here that he seems to proceed too fast, as his own followers—especially Male-

[1] See Chapters VIII and IX.

branche and Spinoza [1]—recognized. When I apprehend that this flower is blue, I cannot really doubt either the "I" or the "apprehension" or the "this" or the "flower" or the "blueness," but *what* exactly any of these is, and how far any of them persists as a separate existence, is not yet determined. Hence, instead of following the thought of Descartes any farther from this point, it will be best to turn back and try to ascertain what is the real significance of the affirmation that I cannot doubt that I doubt.

4. *The Problem of Judgment.*—The first thing that has to be noted here, is, that what it is affirmed that I cannot doubt is a *judgment*. Now, it is well to recognize at once that the only things that we *can* doubt are judgments. Any simple experience that we have, such as pain or joy or a colour or a sound or a tree, cannot really be doubted. We can only doubt some judgments that we form with reference to these experiences—such as: This pain is severe, This joy persists, This colour is green, This is the sound of thunder, This is an apple-tree. Any judgment may be either true or false; and it seems clear that a judgment is the only thing that can be either true or false, in the strictest sense of these terms. Now, what may be either true or false can, in general, be either believed or disbelieved, or regarded as more or less doubtful. The contention of Descartes, however, is that there is one kind of judgment that can only be believed, not disbelieved or doubted—viz. the judgment "I am thinking"; and this appears to involve three things: "I," "thinking," and "am," which are here bound together in essential unity. What is the exact significance of this analysis and this unity? And in what sense is this judgment incapable of being doubted? Obviously, there is no particular point in laying emphasis on the particular statement, that I cannot doubt that I doubt; for, if I believed, instead of doubting, it would be equally impossible

[1] Malebranche denied that we have any clear idea of Self; and Spinoza urged that the Self is not to be regarded as an independently existent Substance. The more sweeping doubts of Hume need not be considered at this point. For some discussion of the substantiality of the individual Self, see below, especially Book II, Chapters VI, X, and XI. For further reference to the followers of Descartes, see Chapter X.

for me to doubt that I believed. It is best, therefore, to concentrate our attention upon the believing attitude in general, which may be taken as including belief, disbelief, and doubt. The contention then is, that what cannot be doubted is the existence of a certain believing attitude at a certain moment in an individual experience.

5. *Value of the Method of Descartes.*—Now, whatever we may think of the subsequent speculations of Descartes,[1] it certainly does appear that he brings out at this point something that has fundamental importance, and that may very well serve as a starting-point in philosophical inquiry. For, however we may interpret the ultimate problems of philosophy, it is evident at least that they all circle round the question of belief. We desire to ascertain what we are entitled to believe with regard to the general structure of the universe, and especially with regard to the place of human life in it. Nothing could well be more fundamental for this purpose than to find out what is the essential nature of belief, what are the grounds on which it rests, and what are its implications. That the general fact of believing is certain, gives us a firm basis to begin with ; and we may take this as being the primary contribution that Descartes made to our study. Accordingly, we now proceed to ask, What is the general nature of the believing attitude? In view of what has already been stated, we need not much concern ourselves with the question, whether this inquiry belongs most properly to psychology, or logic, or theory of knowledge, or metaphysics. It is enough for our purpose that it is one of the most fundamental problems that we have to consider, and that it is the one that naturally presents itself at the very outset. It may very well be that, in discussing it, we shall be led into other problems that are no less fundamental. If so, we must try to take them up in the order in which they present themselves, and to deal with them by any methods that are available. We are dealing with the most fundamental

[1] For further criticism of the procedure of Descartes, reference may be made to Caird's article "Cartesianism" in the ninth edition of the *Encyclopædia Britannica* (reproduced in his *Essays in Literature and Philosophy*, vol. ii) ; also to Kuno Fischer's book on *Descartes and his School* and to the Histories of Modern Philosophy by Adamson, Höffding, and others.

problems, and we can hardly hope for any extraneous guidance as to the best methods of procedure. We must go, as Plato used to say, where the argument leads. It will be well, however, to bear in mind, from point to point, any relevant considerations that can be gleaned from the historical development of philosophic thought, whether they come to us in the guise of psychology or logic or theory of knowledge or metaphysics, or in any other way.

CHAPTER II

THE PROBLEM OF BELIEF

1. *General Statement of the Problem.*—The first writer who laid definite emphasis on the problem of belief was David Hume. It presented special difficulties to him, on account of his atomic theory of the facts of consciousness.[1] If the mind is simply a collection of separate impressions and ideas, how are we to account for the difference between believing and disbelieving them? This was the way in which the problem presented itself to him; and, though this is no longer the way in which it naturally presents itself to us, it is still worth while to take note of the manner in which he attempted to solve it. By presenting the difficulty in an extreme form, we may be better able to see the real nature of the problem. Accordingly, I will begin by quoting some of Hume's statements.

"This operation of the mind," he says, "which forms the belief of any matter of fact, seems hitherto to have been one of the greatest mysteries of philosophy, tho' no one has so much as suspected, that there was any difficulty in explaining it. For my part I must own, that I find a considerable difficulty in the case; and that even when I think I understand the subject perfectly, I am at a loss for terms to express my meaning. I conclude, by an induction which seems to me very evident, that an opinion or belief is nothing but an idea, that is different from a fiction, not in the nature, or the order of its parts, but in the *manner* of its being conceived. But when I would explain this *manner*, I scarce find any word that fully answers the case, but am obliged to have recourse to every one's feeling, in order to give him a perfect notion of this operation of the mind. An idea

[1] See below, Chapter X, § 7, and Book II Chapter II, § 5.

assented to *feels* different from a fictitious idea, that the fancy alone presents to us: and this different feeling I endeavour to explain by calling it a superior *force*, or *vivacity*, or *solidity*, or *firmness*, or *steadiness*. This variety of terms, which may seem so unphilosophical, is intended only to express that act of the mind, which renders realities more present to us than fictions, causes them to weigh more in the thought, and gives them a superior influence on the passions and imagination. Provided we agree about the thing, 'tis needless to dispute about the terms. The imagination has the command over all its ideas, and can join, and mix, and vary them in all the ways possible. It may conceive objects with all the circumstances of place and time. It may set them, in a manner, before our eyes in their true colours, just as they might have existed. But as it is impossible that that faculty can ever, of itself, reach belief, 'tis evident, that belief consists not in the nature and order of our ideas, but in the manner of their conception, and in their feeling to the mind. I confess, that 'tis impossible to explain perfectly this feeling or manner of conception. We may make use of words, that express something near it. But its true and proper name is *belief*, which is a term that every one sufficiently understands in common life. And in philosophy we can go no farther, than assert, that it is something *felt* by the mind, which distinguishes the ideas of the judgment from the fictions of the imagination. It gives them more force and influence; makes them appear of greater importance; infixes them in the mind; and renders them the governing principles of all our actions."

"An opinion, therefore," he concludes, "or belief may be most accurately defined: *A lively idea related to or associated with a present impression.*"

"This definition," he proceeds, "will also be found to be entirely conformable to every one's feeling and experience. Nothing is more evident, than that those ideas, to which we assent, are more strong, firm and vivid, than the loose reveries of a castle-builder. If one person sits down to read a book as a romance, and another as a true history, they plainly receive the same ideas, and in the same order; nor does the incredulity of the one, and the belief of the other hinder

them from putting the very same sense upon their author. His words produce the same ideas in both; tho' his testimony has not the same influence on them. The latter has a more lively conception of all the incidents. He enters deeper into the concerns of the persons: represents to himself their actions, and characters, and friendships, and enmities: he even goes so far as to form a notion of their features, and air, and person. While the former, who gives no credit to the testimony of the author, has a more faint and languid conception of all these particulars; and except on account of the style and ingenuity of the composition, can receive little entertainment from it." [1]

It is noteworthy that the terms employed by Hume to characterize belief fall into three distinct groups. The first group consists of terms expressive simply of intensity or strength—*force*, *vivacity*. The second consists of expressions relating to a certain tendency to action—*influence*, *importance*, *governing principles*. The third consists of expressions containing some reference to persistence—*solidity*, *firmness*, *steadiness*, *infixing in the mind*. These three methods of characterization are very different; and perhaps some consideration of each of them may help us to gain a better insight into the difficulties of the problem.

2. *Belief as Force of Conviction.*—It is on the first mode of characterization that Hume himself appears to lay most stress; and indeed his reason for this is obvious enough. "All the perceptions of the mind," he tells us, "are of two kinds, viz. impressions and ideas, which differ from each other only in their different degrees of force and vivacity. Our ideas are copied from our impressions, and represent them in all their parts. When you would any way vary the idea of a particular object, you can only increase or diminish its force and vivacity. If you make any other change on it, it represents a different object or impression. The case is the same as in colours. A particular shade of any colour may acquire a new degree of liveliness or brightness without any other variation. But when you produce any other variation, 'tis no longer the same shade or colour.

[1] *Treatise of Human Nature*, Part III, § vii.

So that as belief does nothing but vary the manner, in which we conceive any object, it can only bestow on our ideas an additional force and vivacity." [1] This appears to be sufficiently explicit ; but subsequent reflection evidently convinced Hume that it was erroneous. In his Appendix he states definitely that it is a mistake to say "that two ideas of the same object can only be different by their different degrees of force and vivacity. I believe there are other differences among ideas which cannot properly be comprehended under these terms. Had I said, that two ideas of the same object can only be different by their different *feeling*, I should have been nearer the truth." Thus we are thrown back into vagueness again.

Now, it is not of any great importance for our present purpose to know what Hume's view really was. It is enough to state that it seems to be quite clearly erroneous to suppose that a mere difference in force or vivacity can account for the presence or absence of belief. The illustration that he gives from the distinction between fiction and history is even ludicrously untrue. Most people have a more vivid apprehension of Othello, Falstaff, Don Quixote, Sam Weller, or Sherlock Holmes, than they have of the majority of historical personages. It is true that this vivid apprehension makes it somewhat difficult to realize that these characters are purely fictitious ; but it seems clear that this difficulty can be overcome. It seems clear also that we can believe in the real existence of personages, such as Homer or Epimenides, of whom it is impossible to gain any vivid representation. All that can reasonably be maintained, therefore, is that vividness of presentation is one of the grounds that tend to produce belief ; not that it is its essential characteristic. Accordingly, in more recent times, it is not on this aspect of belief that emphasis has been chiefly laid.

3. *Belief and Action*.—The view that belief is specially connected with a tendency to action has met with much more support. Bain, in particular, contended quite definitely that belief means essentially a tendency to act. The pragmatists, somewhat less definitely, have urged that belief is ultimately

[1] *Treatise of Human Nature*. See also below, Book II, Chapter II, § 5.

based on the needs involved in action. Now, it seems evident enough both that belief tends to lead to action, and that action tends to create and strengthen belief.[1] "We all believe many things," as Mr. Russell remarks,[2] "which we have no good ground for believing, because, subconsciously, our nature craves certain kinds of action which these beliefs would render reasonable if they were true." Sometimes, on the other hand, we are apt to think that things that would be pleasant and that would further our activities are "too good to be true." These psychological connections between belief and action depend largely on temperament, and on the degree of success or failure of our previous active experiences. That they have considerable influence with most people, cannot be doubted; but it is easy to exaggerate their importance. There appear to be pretty obvious limitations on both sides. It is quite possible to act vigorously—say, in a "forlorn hope"—without any belief in the success of the action. No doubt some kind of belief is involved even in such a case—the belief, for instance, that the action is right; but in the case of what is sometimes called "incontinence"—action brought about by "temptation," against our better judgment—or in any action that approximates to the instinctive type, even this element of belief may at least be evanescent. How many of those who avoid the number 13 can be supposed really to believe that it has any power for evil? In purely animal action there is probably nothing that can be properly called belief, though there may be some of the germs out of which beliefs might be formed. It would seem, therefore, that definite actions are not necessarily dependent on definite beliefs. Nor does it appear to be the case that definite beliefs necessarily lead to definite actions. We may believe in the existence of molecules, of electrons, of nebulæ, of a Glacial Epoch, of a Golden Age, without any definite influence on action, except the act of belief itself, and the thoughts that are immediately connected with it. Even the belief in Heaven and Hell has not always proved in any high degree influential in action. "Every one knows," as Bryce has observed,[3] "how little a man's

[1] This is very well brought out in Professor Stout's *Manual of Psychology*, Book IV, chapter viii.

[2] *Principles of Social Reconstruction*, p. 11.

[3] *Holy Roman Empire*, p. 133.

actions conform to the general maxims which he would lay down for himself, and how many things there are which he believes without realizing: believes sufficiently to be influenced, yet not sufficiently to be governed by them." To say that, in such cases, it is not a genuine belief, is only to beg the question. It seems clear, therefore, that, though the relation between belief and action is a close one, it cannot be fairly maintained that the essential nature of belief is to be found in its influence on action.

4. *Belief and Apprehension.*—Such expressions as "firmness" or "solidity" seem to bring us somewhat nearer to what is specially characteristic of the believing attitude. What we regard as fictitious floats vaguely before us, like a cloud; whereas what we definitely believe is relatively fixed, like a star in the firmament. Fictitious narratives are of events that happened "once upon a time." If they are definitely localized and dated, as in the tales of Defoe and others, the result is to induce at least a momentary belief; and this is a result that is often aimed at by writers of fiction. But in what is purely fictitious the fixing fails at some point or other. The events refuse to fit in with other events that we connect with the same time and place, or are incompatible with what we know of the general conditions of human life. It is indeed noteworthy that Hume himself, while appearing to lay stress on the vividness of the presentation, does in fact call attention to the definite determination of the content as what is specially characteristic of belief. The reason why he did not more definitely emphasize this aspect is of course obvious enough. To do so would have involved the abandonment of his atomic theory of our ideas or presentations. It would have involved the recognition that to judge is something essentially different from the simple apprehension of an idea. That this is the point at issue, he was indeed pretty fully aware. "We may here take occasion," he says in a Note, "to observe a very remarkable error, which being frequently inculcated in the schools, has become a kind of established maxim, and is universally received by all logicians. This error consists in the vulgar division of the acts of the understanding, into *conception*, *judgment*, and

reasoning, and in the definitions we give of them. Conception is defined to be the simple survey of one or more ideas : judgment to be the separating or uniting of different ideas : reasoning to be the separating or uniting of different ideas by the interposition of others, which show the relation they bear to each other. But these distinctions and definitions are faulty in very considerable articles. For *first*, 'tis far from being true, that in every judgment, which we form, we unite two different ideas ; since in that proposition, *God is*, or indeed any other, which regards existence, the idea of existence is no distinct idea, which we unite with that of the object, and which is capable of forming a compound idea by the union. *Secondly*, as we can thus form a proposition, which contains only one idea, so we may exert our reason without employing more than two ideas, and without having recourse to a third to serve as a medium betwixt them. We infer a cause immediately from its effect ; and this inference is not only a true species of reasoning, but the strongest of all others, and more convincing than when we interpose another idea to connect the two extremes. What we may in general affirm concerning these three acts of the understanding is, that taking them in a proper light, they all resolve themselves into the first, and are nothing but particular ways of conceiving our objects. Whether we consider a single object, or several ; whether we dwell on these objects, or run from them to others ; and in whatever form or order we survey them, the act of the mind exceeds not a simple conception ; and the only remarkable difference, which occurs on this occasion is, when we join belief to the conception, and are persuaded of the truth of what we conceive. This act of the mind has never yet been explained by any philosopher ; and therefore I am at liberty to propose my hypothesis concerning it ; which is that it is only a strong and steady conception of any idea, and such as approaches in some measure to an immediate impression." [1] Parts of this statement do not at present concern us ; but we see in it that Hume seeks to break down the distinction between apprehension and judgment, by reducing it to a difference in the degree of strength in our presentations. An impression,

[1] *Treatise*, as above.

according to him, is not merely believed: it is certainly known. A belief is a feebler kind of presentation; and an idea, apprehended as fictitious, is feebler still. Such a view would now be almost universally regarded as a heresy that is long since dead. But we have to try to see clearly what is the view that is to be put in its place. For the doctrine, to which Hume here refers, of distinct faculties of apprehension, judgment, and reasoning, has become even more definitely extinct than his own. But it may be well to notice here a way in which something rather like it has been revived.

5. *Brentano's View of Belief.*—The view of Brentano on this subject has attracted a good deal of attention. According to him, belief or judgment is to be regarded as an attitude of consciousness that is fundamentally distinct from apprehension. His doctrine is most definitely summed up in the following passage: "When we say, Presentation and Judgment are fundamentally different classes of psychical phenomena, we mean by this, in accordance with what has been previously remarked, that they are two entirely different ways in which we are conscious of an object. In saying this, we are not denying that all judgment presupposes a presentation. We maintain rather, that every object with reference to which a judgment is formed, is apprehended by our consciousness in two distinct ways, as simply presented and as affirmed or denied. The relation is thus similar to that which, as we saw, is rightly recognized by the great majority of philosophers—by Kant no less than by Aristotle—as existing between presentation and conation. Nothing is desired which is not presented; nevertheless desiring is a second, a quite new and peculiar mode of relation to the object, a second and quite new way in which it is apprehended in consciousness. So too, nothing is judged which is not presented; but we maintain that, as soon as an object of presentation becomes the object of an affirmative or negative judgment, our consciousness enters into a totally new mode of relation to it. It is then doubly apprehended in consciousness, as presented and as affirmed or denied; just as, when desire is directed to such an object, it exists in consciousness both as presented

and as desired." [1] Here again, there are some things in these statements that do not at present concern us; but the contention that belief or judgment is to be regarded as a distinct mode or attitude of consciousness, puts definitely before us a view of a very different type from that suggested by Hume, and one that is now much more widely accepted. In order, however, that we may see exactly what is involved in it, it seems important at this point to distinguish between the logical and the psychological aspects of the question. In other words, we have to try to distinguish between a judgment or proposition and a belief. Evidently it would be quite possible to recognize that a judgment is a complex object, and yet to hold, with Hume, that to believe a judgment or proposition is not a distinct attitude of consciousness, but only a distinct degree of it.

6. *Belief and Judgment.*—The theory of judgment involves some difficult problems; and we can only touch upon it briefly at this point. What it is specially important to bear in mind for our present purpose, is, that a judgment or proposition is the expression of a meaning. A distinction is indeed sometimes drawn between the judgment as meaning and the proposition as expression. But it is doubtful whether much can be made of this distinction, though it is a convenient one for certain purposes. A proposition can hardly be treated as purely verbal. The same proposition can be expressed in different languages, and in varying forms in the same language. It would certainly be paradoxical to say that, with every such modification, it becomes a different proposition. On the other hand, we can hardly think of a judgment that is not expressed in some form of words. It is usual, however, in logic to state judgments in certain definite forms, which are not always those adopted in ordinary discourse. It might be convenient to refer to an assertion as a proposition when it is not reduced to any such definite form; and to call it a judgment only when it is expressed in the form of words that most definitely conveys the meaning that is intended. It must be left, however, to special treatises on logic to determine what that form is, or rather what

[1] *Psychologie vom empirischen Standpunkte*, Band I, Buch I, cap. 7, *ad init.*

those forms are. We need not concern ourselves with such questions at present. Also, we need not at present trouble ourselves with the distinction—important though it no doubt is—between meanings that are directly conveyed, or intended to be conveyed, and those that are more indirectly implied. It seems clear that Sir William Hamilton's postulate, that what is explicit in thought should be made explicit in language, cannot in general, if ever, be fully complied with. But the problem of implication is one that we shall have to refer to later.[1]

Now, it seems clear that all meanings are objective, in the sense at least that they have no special reference to any individual consciousness. Whether they have a reference to consciousness in general, we need not at present consider. When I know what is meant by blue, I know at the same time that what is thus meant is not a peculiar possession of my own, but a definite object that might be apprehended by any consciousness. So it is also, if I know what is meant by three or by straight or by good, or by any other word that conveys a definite sense. The same is true of a judgment or proposition. The meaning that it conveys may be one that has been first discovered, or that is primarily intended, by some particular person ; but the same meaning may be conveyed to any other individuals who are capable of framing or understanding judgments. This is very obviously the case with such a judgment as that $2 + 2 = 4$, or that there is a God, or that blue is different from green. But even when the judgment is more purely personal, as "I feel sorry," or "I am fond of riding," it expresses a meaning that can be conveyed to any number of intelligent beings, and that, if rightly understood at all, is understood by them all in the same sense. To this extent at least a judgment is objective. Belief, on the other hand, is the acceptance of a judgment as true by some individual consciousness. It is true that many minds may entertain the same belief ; but this is only another way of saying that the same judgment may be accepted as true by many different minds.[2] What we have now to ask

[1] See especially Chapters VI and VIII.

[2] According to Baldwin's *Dictionary of Philosophy* (under the word "Belief") "Belief is the psychological, and judgment the logical or formal side, of the same

is—What is to be understood by this individual act of *accepting something as true?*

It seems clear, to begin with, that every judgment may be either true or false. The exact meaning of this we shall have to consider later.[1] For the present the bare fact must suffice. It seems obvious that the judgment "$2 + 2 = 4$" is true, and that the judgment "$2 + 2 = 5$" is false. In other cases the truth or falsehood is less obvious; but it can hardly be disputed that the characteristic of truth or falsity always belongs to judgments, however it may have to be interpreted. It seems clear also that a false judgment may be regarded as true by a particular individual; and that a true judgment may be regarded as false. Hence the belief of any individual with regard to any object may be either correct or erroneous. It may also, it would seem, be more or less widely removed from the truth; and it may be entertained with more or less firmness of conviction; so that belief has degrees both of firmness and of correctness or error. This much will hardly be disputed. What we have next to inquire is—What is it exactly that is added to a proposition or judgment when it is believed to be true?

When the judgment "$2 + 2 = 4$" is believed, the judgment "$2 + 2 = 5$" is disbelieved, and the judgment "There is a God" is doubted, what is it that happens to these judgments in each case? We might be inclined to answer that what happens is that an additional judgment is added—in the first case, the judgment "This is true"; in the second case, the judgment "This is false"; in the third case, the judgment "This is doubtful." But we should still have to add that each of these judgments is believed; and the meaning of believing would still be unexplained. An instance of a different kind may perhaps enable us to see better what takes place. Take the judgment "Paris is in Italy." What happens when any one disbelieves this? Any one who definitely disbelieves this must know, in a more or less distinct way, what is meant by Paris and by Italy, and by one place being contained within another place. In

state of mind." But is it not somewhat misleading to refer the logical aspect to a "state of mind"? Does it not tend to make both aspects appear to be "psychological"? I think this is a besetting sin of many of the ways of treating judgment in books on Logic.

[1] Especially in Chapter VIII.

disbelieving the judgment, what he means is that Paris, as he conceives it, is not contained within Italy, as he conceives it. Though he understands what is meant by the judgment "Paris is in Italy"—indeed, just because he does understand what is meant by it—he cannot accept it. Paris cannot find a "firm" place within Italy, as he represents it to himself. He might *imagine* Paris as being in Italy; but to do so would involve some modification of the more or less fixed conception that he has of Italy and of other European countries; and hence he refuses to *believe* it. Now, what happens in this case appears to be typical of all other cases. We believe what fits in with some plan or scheme that we have before us: we disbelieve what refuses to fit in: we remain doubtful when we have no fully formed plan, or when it is not apparent whether the object with which we are dealing does or does not fit in with it. The plan, however, is not always something that can be as easily represented as the map of a country. The system of numbers, for instance, is more difficult to deal with; and the circumstances that lead people to believe or disbelieve in the existence of ghosts, in the righteousness of a war, or in the reality of progress, are highly complicated. Belief, in such cases, is generally combined with some degree of doubt. Even the map of a country, especially in times when there are rapid changes of boundaries, may be somewhat uncertain. Sometimes, instead of disbelieving what does not fit in with our plan, we may be led rather to modify the original plan itself. A new discovery in science may lead us to change our whole conception of the physical system. Our conception of a country—e.g. Turkey—may be altered by learning that some place is no longer included within it. If we are convinced that there are ghosts, we may have to change our general view of human life. Until we have succeeded in carrying out such readjustments, however, our beliefs are somewhat lacking in "solidity," to use another of the terms that are employed by Hume, or, to use an expression that has been more recently adopted, in "coherence."

All this might no doubt be otherwise expressed in terms of judgment, rather than of belief. We might say, with Kant, that a judgment of experience is essentially the refer-

ence of some content to the "objective unity of apprehension"; or, with some modern logicians, that the ultimate subject of all judgment is reality. The significance of these ways of putting it—which involve a definite distinction between judgments and propositions—will be considered later. In the meantime, it seems less misleading, and more in accordance with the ordinary usage of language, to call this reference belief, rather than judgment. Adopting this way of speaking, we are now in a position to appreciate the significance of some of the terms that are used by Hume in his characterization of belief—viz. such terms as "fixity," "firmness," and "solidity," which we can now connect with the more modern term "coherence."

7. *Subjective and Objective Aspects of Belief.*—This way of regarding the subject enables us to see that there are in belief aspects that may be distinguished as subjective and objective. The objective aspects are certain plans or schemes that we have, more or less definitely, before our minds, together with certain propositions or judgments that are suggested to us. The plan or scheme may be the map of a country, the contents of a book, a system like that of numbers or like that of the physical world, a general conception of human life or of the universe as a whole, etc. The proposition or judgment comes before us in the form of a question. Is it or is it not to be accepted? We answer this by trying to fit it into the schemes to which it appears to belong, and, if necessary, readjusting them to suit it; and it is here that the more purely subjective aspects appear.[1] The objects to be dealt with, both the plans and that which is to be fitted into them, appear before us with more or less clearness, and we deliberate with regard to their acceptance or rejection or modification. There is thus in all belief a certain element of individual freedom. There are alternative possibilities, and we choose the one that seems to us on the whole most acceptable. This aspect of belief or judgment was specially emphasized by Descartes and, still more, by

[1] The discussion of Apperception in Professor Stout's *Analytic Psychology* (Book II, chapter viii) throws much light on this subjective aspect. Here, however, we are concerned with that only in a rather indirect way.

his disciple Malebranche. It forms the basis for the contention that all error is sin—i.e. that it implies a wrong choice, a choice of the worse instead of the better. Instead of holding, like Socrates, that no man is willingly wicked, Malebranche contended rather that all men, in so far as they make mistakes, are willingly deceived. The one thought that all sin is error; the other, that all error is sin. These opinions we shall have to consider later.[1] In the meantime, we may provisionally suppose that the view of Malebranche contains some exaggeration. It appears to imply an imperfect recognition of the more objective aspect of belief; but, at any rate, it serves to bring into prominence the more subjective aspect. With certain limitations, it is open to us to believe or disbelieve or doubt anything, though some things are much more difficult to believe or disbelieve or doubt than others; and perhaps we may have to recognize that there are some that cannot be believed, some that cannot be disbelieved, and some that cannot be doubted. A recent writer has well urged[2] that "we can decide whether or not we shall see anything—whether we shall look that way. But once we have looked we have no choice of what we shall see." On the other hand, it has to be remembered that "the eye sees only what it brings with it the power of seeing"; and in the formation of complex beliefs there is a still more definite act of selection. Of course, such selection is not without objective grounds. But the fact of individual choice that has thus been brought into prominence, opens up a fresh problem of such importance that it appears to call for a chapter to itself.

[1] See especially Book II, Chapter IX.

[2] Dr. H. Wodehouse, *The Presentation of Reality*, p. 147.

CHAPTER III

THE GENERAL NATURE OF CHOICE

1. *The Meaning of Choice.*—As choice is a matter of direct individual experience, it should not be difficult to deal with it in a general way, even at this early stage in our inquiry.[1] The subject is one that belongs properly to psychology; but it has already been indicated that some psychological problems lie within our present scope; and certainly this appears to be one of them. It would not be satisfactory simply to refer to the treatment of it in psychological textbooks, partly because there is some lack of unanimity on the subject, and partly because our interest in it here is not of a purely psychological character. The aspects of the subject that specially concern us at present are of a simple kind; and it may be hoped that they can be stated in a way that is not open to much dispute.

The first thing that seems to claim our attention here is the general fact of liking. It appears to be a universal experience that we like some things and dislike others, while there are also some things to which we are almost completely indifferent. Most people have some degree of liking for sweet tastes. Every one seems to dislike physical pain. On the other hand, though we are generally more or less conscious of the pressure of the clothing that we wear, we are as a rule practically indifferent to it. Simple facts of liking, such as these, are commonly described by the terms "pleasantness," "unpleasantness," and "neutral feeling." The last term, however, seems to mean simply the absence of feeling; and there is some doubt whether it is ever entirely absent. In such simple experiences the element of choice hardly appears to

[1] Its nature is more fully considered in later chapters, especially Book II, Chapters VI, VIII, and IX.

be present at all. They seem rather to come to us as directly or inevitably as a colour or a sound. Recent psychologists do not class them along with sense experiences, as most of the older psychologists did; and there are no doubt certain grounds for both views. Most sense experiences can be traced to particular sense-organs, whereas pleasantness and unpleasantness appear to connect themselves with all sense-organs, and even to arise without the special stimulation of any sense-organ at all. On the other hand, their general characteristics are very similar to those of sense experiences in general, and especially to such sense experiences as those of heat and cold. Like these, they appear to have degrees of intensity, and to be positive or negative in quality;[1] and there appears to be a zero point to which they may approximate. If the term "inner sense" has any appropriateness, it would seem to be to such experiences as these that it might be best applied. But with this question we need not much concern ourselves. What specially concerns us here is to try to trace the connection between such experiences and the fact of choice.

We may ask, in the first place, whether it is possible to distinguish between the pleasantness and unpleasantness that comes to us in such experiences as these, and the fact that is expressed by the terms "liking" and "disliking." There does appear to be some difference; and the selection of a particular instance may perhaps help us to decide the question. Take such an experience as that of toothache. Here we are, first of all, conscious of certain experiences of touch and movement; and these are combined with an experience of physical pain, similar to that felt in other aches, wounds, or bruises. The whole experience, and especially the physical pain, is, in general, markedly unpleasant, and we strongly dislike it. Are these only different ways of saying the same thing? This does not seem to me to be the case. The unpleasantness—which again is distinct from the pain—appears to be a special kind of sense experience that comes to us

[1] "Negative," of course, does not here mean absence of definite experience. Unpleasantness is, in that sense, quite as positive as pleasantness. So too cold, regarded as an object of experience, is as positive as heat, and black as positive as white. What is meant by describing such qualities as positive and negative is that they are at opposite poles of the same kind of experience.

directly, just as the touch and the pain do; whereas the disliking is, as Brentano would say, a distinct attitude of consciousness. This difference is naturally expressed by saying that *it is* unpleasant, and *I* dislike it.[1] The disliking appears to be an attitude of ourselves to the sense experience that we receive. Such an attitude may be taken as the most rudimentary beginning of aversion or negative choice; but it is hardly more than the bare beginning. In the case of choice or aversion, we are not merely liking or disliking, but seeking to retain or to get rid of the object that is liked or disliked. Such an attitude is of the type that is commonly called *active*; and we must try to understand what this means.

2. *Choice and Attention.*—As a general rule, whenever we are active, we are conscious of some bodily movement; and this consciousness is commonly included in our conception of activity. But the kind of choice that is involved in a simple belief does not appear necessarily to involve any definite bodily movement; and hence, if this is to be called activity, it would seem that we must regard activity as not always implying bodily movement. What it does imply is some sort of selection, which may or may not issue in or be accompanied by some definite bodily movement. Now, it would seem that the simplest form of selection is that which is contained in what is called attention; and some consideration of this may help us to deal with our present problem. In order to deal with this, however, it is necessary to take note of some other characteristics of our conscious experience—characteristics that are, on the whole, so obvious, that we may venture to discuss them, with some hope of profit, even at this early stage.

It seems clear that the characteristic of our conscious experience on which Hume laid so much stress—the fact that

[1] This distinction does not appear to me to be sufficiently brought out by most modern psychologists. It seems to be the same as that which is drawn by Brentano between *Gefühlsempfindungen* and *Gefühle* (*Psychologie*, i, 111). I think, however, the term "feeling" (and especially the term *feeling-tone*) is more commonly applied to the former. Dr. Urban's distinction between "feeling-tone" and "feeling-attitude" (*Valuation, its Nature and Laws*, p. 40) is perhaps better. See also below, Book II, Chapters VI and VIII, and cf. Husserl, *Logische Untersuchungen*, i, p. 393.

it contains different degrees of force or vivacity—is really to be found in almost all its aspects. It does not appear to be the case that it serves, in any direct way, to mark the difference between impressions and ideas; and we have already seen reason to doubt whether it suffices as an explanation of the difference between belief and mere imagination. But it is evidently true that sounds and colours and the other data of our sense experience may be more or less intense; and the same appears to be true of pleasantness and unpleasantness, whether these are or are not to be regarded as sense-data. But, besides this aspect of intensity that belongs to the particular objects of our cognition, there appear also to be degrees in cognition itself, which are distinguishable from degrees in its objects. Whatever may be the degrees in the objects that we apprehend, we may apprehend them with more or less distinctness. Sometimes this degree of distinctness seems to be dependent on the intensity of the object. A bright light is generally more distinctly apprehended than a dim one, and a sharp pain than a dull one. But this is not always the case. The dropping of a pin may be more definitely noticed than a clap of thunder, and a slight pressure more than a heavy weight. When this is the case, we commonly say that the one attracts our attention more than the other. Now, it is important to understand exactly what this means. To speak of attention being attracted is evidently to use language that is somewhat metaphorical, and we must try to express the fact in a way that is more precise and more literally true.

3. *Interest*.—It has been customary to distinguish two kinds of attention, voluntary and involuntary. The distinction corresponds, to a considerable extent, to that which has been already noticed. When a loud noise becomes very distinct in our consciousness, we say that our attention is involuntarily attracted by it. When, on the other hand, we definitely notice a very faint sound, our attention to it is generally more or less voluntary. What this distinction seems primarily to imply is that the dominance of an object in consciousness may be due either to its own intensity or to some other circumstance. The other circumstance is, in general, some

form of what is called *interest*. The loud sound becomes dominant whether it interests us or not, and frequently it interests us simply because it is loud. The reason for our interest in the faint sound, on the other hand, is generally something distinguishable from its characteristic, simply as a sound. A nurse, for instance, may be aroused by a very slight noise made by a patient, though quite undisturbed by much louder sounds. The interest here is not in the sound as sound, but in its significance. This case would hardly be said to be very definitely voluntary ; but it would become so if the nurse went on to try to make out exactly the nature of the slight noise that was made by the patient. Now, is it possible to give a more definite account of the fact of interest that thus appears to affect the degree of our cognition?

4. *Valuation.*—It seems to be connected very closely with the fact that is perhaps most definitely expressed by the term *valuation*. What interests us depends on what we value. This term, again, brings into prominence the aspect of degree that attaches to interest. It is very evident that we value things more or less. Indeed, it would seem that we generally have before us a more or less definite scale of valuations. Some things we hardly value at all ; some have a very high value ; others appear to have a negative value. Again, it seems clear that these distinctions are somewhat closely connected with the facts of pleasantness and unpleasantness, liking and disliking. To say that we like anything is almost the same thing as to say that we value it. But it does not appear to be *quite* the same. We do not always like what we value, or value what we like. Still less does it seem to be true that we value what is pleasant. And yet there is evidently some connection between all these things. To consider their exact relations is hardly possible at this point ; [1] but the following may serve as a provisional statement on the subject.

Pleasantness and value may be regarded as two ends in an advancing series. A simple smell may be pleasant or unpleasant ; and such pleasantness or unpleasantness may

[1] For further consideration of this subject, see Book II, Chapter VIII, especially § 3.

come to us without any distinct consciousness of an object. When the object becomes more definite, we say that we like a certain kind of smell and dislike another. In liking, however, as well as in pleasantness, there are degrees ; and when we have a more or less orderly arrangement of our likings, we have the beginning of valuation. But valuation, though setting out from simple pleasantness or liking, passes rapidly away from this starting-point. We pass from the simple fact of pleasantness to its causes ; and these may be either efficient or final. The further consideration of this must be postponed to a later stage. But it seems clear that we come to value not only what is immediately pleasant, but also what we recognize as a source of pleasant feeling ; and further, that we come to value objects that are only indirectly characterized by pleasantness. Food, for instance, may at first be valued simply as pleasant or as a source of pleasurable experiences. We are led, however, on reflection, to value it further, and even more, as a means for the support of life ; and we thus come to think of life itself as something that has value ; and we may then go on to inquire for what end life is to be valued. Reflection of this kind leads us to think of value as an objective end, without any direct reference to the feeling of pleasantness with which it is connected. Value, thus conceived, like pleasantness and liking, has a negative as well as a positive reference. What has positive value we commonly call *good* ; and what has negative value we call *evil*. The exact significance of these terms, and the exact sense in which the objects that they denote are to be regarded as objective, must be the subject of a future inquiry.[1] In the meantime, the general fact that is here referred to seems to be pretty obvious and it accounts for the formation of what are called our *interests*. Our interests, in general, seem to mean certain groups of objects that are connected with a high degree of valuation ; and what, for our present purpose, it is specially important to recognize is that what interests us (either in a positive or in a negative way) serves as a ground for that kind of dominance in consciousness which is a main aspect of what is known as attention. Such dominance, it would seem, may be produced either

[1] See the general discussion of value in Book II, Chapter VIII.

by the intensity of the object or by its connection with a high degree of valuation; and it is these two grounds of dominance that appear to account for the general distinction between involuntary and voluntary attention. There are many difficult problems connected with these facts, which call for much more discussion than can be given to them here; but a summary statement of this kind appeared to be necessary at the present stage.

5. *Choice and Belief.*—Now, what has further to be noted here is that knowledge or truth is one of the things that we gradually come to value, and that becomes a basis for definite interests, and hence for the dominance of certain objects of consciousness. It is the kind of dominance thus brought about that appears to be what is properly indicated by the variety of terms that were employed by Hume in his characterization of belief. An object that is thus made dominant does gain a certain kind of intensity; but to say that it is intensity that explains belief appears to be a case of putting the cart before the horse. It is our interest in truth, it would seem, that gives a certain fixity and prominence to certain objects that come before our consciousness; and it is this kind of fixity and prominence, dependent on choice and valuation, that we mean by belief. If this is true, it is evident that Brentano's comparison between Choice and Belief is misleading. They are not two distinct things that may be compared with one another. Rather Belief is a particular case of Choice. This would seem to be the main element of truth in the doctrine that Belief involves action. But the action that is thus involved is simply the act of selection. That this selection may be partly due, as William James urged, to the conviction that the belief will help us to carry on other activities, is a further consideration, which does not appear to be necessarily involved in the believing attitude as such.

It is important to remember, however, that choice or selection, in the wide sense in which these terms are here understood, may be present in very varying degrees; and this applies to the element of selection in belief, as well as to its other modes. A fully formed belief rests on a deliberate

choice, based on the recognition of some sufficient ground; just as a voluntary action rests on a similar choice, based on the apprehension of some end to be achieved. But, just as many actions are not of this deliberate character, so many beliefs are adopted in an arbitrary or unreflective way. Many beliefs are accepted on tradition; just as many actions rest on imitation. Some beliefs, like some actions, may be described as instinctive, in the sense that they are directly suggested by things as they appear to us, without any attempt at reflective analysis. The relative persistence of certain objects, for instance, tends to lead us to believe that they are absolutely permanent and self-identical substances. Again, we tend to entertain some beliefs simply on the ground of the very simple form of selection called liking. Or we may entertain them on pragmatic grounds, as working well in the general conduct of life. Browning's account of Bishop Blougram is a good instance of the adoption of particular beliefs on such grounds. If this were a treatise on psychology, it would be important to consider the influence of these and other grounds in the formation of belief. But what is important for our present purpose is simply the fact that they all contain the element of choice or selection,[1] in the widest sense of these terms.

This must suffice as a general account of the nature of belief, and of the place of choice in relation to it. Having now summarily dealt with this, we are in a position to pass on to the consideration of some of the most important implications of belief.

[1] It should be noted that to say that belief involves choice or selection does not necessarily mean that we choose to believe. This would imply a *double* act of choice: it would mean "choosing to choose." *Sometimes*, of course, we perform this double act, but not always. On the significance of this, see below, Book II, Chapter IX, especially § 10.

CHAPTER IV

THE PRIMARY IMPLICATIONS OF BELIEF

1. *The General Problem.*—Having set out from the general fact of belief, and given a summary sketch of its essential nature, we are now in a position to consider some of the chief implications of this fundamental fact. To a certain extent a few of these have been indicated in the general account that has already been given ; but it seems important at this stage to set them out in a more detailed way. This will be done in a summary fashion in the present chapter. Afterwards we can discuss more fully those that appear to call for special attention. The following seem to be the chief implications.

2. *Existence of Independent Centres of Consciousness.*—A belief is entertained by some conscious being ; and the fact that there are beliefs thus implies that there are conscious beings. This is of course the foundation of the Cartesian *cogito ergo sum;* and, if it is preferred, we may confine ourselves at this stage to the affirmation that there is one conscious being, i.e. one being capable of entertaining beliefs, disbeliefs, and doubts. As a matter of fact, the existence of a number of conscious beings is hardly less certainly apparent ; but this had better be left for discussion at a later stage.[1] What is meant by saying that a conscious being exists, is also a point that cannot be fully discussed at present. It seems at least to mean that there is some centre or focus at which something is recognized. We need not for the present regard it as implying more than this. A few words seem to be called for, however, on the meaning of cognition.

[1] See especially Book II, Chapters X and XI.

3. *Cognition.*—This term may be understood in a wider or in a narrower sense. In the narrower sense, we commonly distinguish knowing from other modes of apprehension. If we have the experience of headache, for instance, we commonly say that we feel this, not that we know it. Again, we commonly distinguish believing from knowing. But to cognize, in the wider sense of the term, means simply to be aware of some object, whether that object is felt, believed, thought about, doubted, denied, loved, hated, desired, willed, remembered, feared, hoped for, or in any other way apprehended. It is important to bear this distinction in mind. Otherwise we may fall into great confusion. The use of the term *cogito* by Descartes appears to be not altogether free from such confusion; since it is sometimes used for the general fact of cognition and sometimes for that more special mode of apprehension which we call thinking. What we are referring to at present is cognition in the wider sense, i.e. any mode in which an object is apprehended by some subject. These terms also, however, call for some explanation.

4. *Subject and Object.*—In referring to a subject of cognition, we must not be understood to mean anything more than what has been already indicated. We are not concerned at present with the problem of personality, either as regards its nature or its persistence.[1] If an oyster is conscious of anything, it would be a subject, in the sense at present required, quite as truly as an Aristotle. We mean nothing more than that there is some centre at which some object or objects are apprehended. By an object, again, we understand nothing more than some distinguishable presentation. It may be a pain, a smell, a colour, a plant, a number, a proposition, or any other definitely apprehended thing. In speaking of subject and object, we simply call attention to the fact that distinguishable things are apprehended at a conscious centre. But we have now to notice a further point, viz. that these objects are not entirely disconnected

[1] Professor Alexander's paper on "The Self as Subject and as Person" is of great value in this connection (*Proceedings of the Aristotelian Society*, vol. xi). See also below, Book II, Chapter VI.

atoms, but occur in a certain order, which it may be convenient to refer to as the subjective order. We must now try to understand what this means.

'5. *Subjective Order.*—It is very apparent that the cognitions of different individuals are not identical; nor are those of the same individual at different times. If we regard the total content of any one's knowledge at any time as a world, it seems clear that such worlds are many and diverse, and that each one of them is a changing world. It is clear also, however, that there is a certain sameness in this difference. Some are blind: colour is not in their world. Some are deaf: sound is not in their world. For some, smells and tastes have a much less prominent place than for others. Heat and cold, pressure, strain, pain, even pleasantness and unpleasantness, are probably not experienced in equal degrees by all. The extent to which numerical and other quantitative determinations are applied to things is very different for different individuals. The classification of types, the recognition of causal relations, play a much greater part in some men's apprehension of their world than in that of others. Beauty and ugliness, right and wrong, good and evil, seem to be differently estimated by some than by others; and the general opinions that men form with regard to the structure of their world are markedly diverse. And, however true it may be that "the child is father of the man," every one is aware of considerable changes in his apprehension of the world at successive stages in his life. Yet in all these different worlds there are some more or less definite forms of arrangement. More or less of pressure, for instance, is experienced by every one; and the meaning of more and less seems to be the same for all. All mean the same thing by one, two, and three, by pleasant and unpleasant, and on the whole by good and evil—though they may apply these conceptions to different things. All recognize the alternations of day and night, summer and winter, hunger and thirst and their satisfaction. What are the elements of sameness that enter into all experience, we are not at present in a position to consider. What we have to note at this point is only that for each of us there is a more or less

orderly world, which, however, cannot be assumed to be the same for all, or to be persistent for any one individual. The arrangement that exists in any one's apprehension of things may be referred to as a subjective order.

6. *The Fact of Judgment.*—The entertaining of beliefs or opinions involves, further, that judgments may be formed with regard to the various objects that constitute our world. Such statements as "green is a colour," "blue is not black," "this smell is pleasant," "12 is more than 10," "this outlook is beautiful," "rest is good," express various kinds of relation between particular objects that we apprehend—relations with regard to which different individuals may agree or differ. The exact significance of such statements will have to be considered in the following chapter. In the meantime, it is clear that the formation of beliefs involves the possibility of making such statements, and of accepting or rejecting them.

7. *Meanings.*—A judgment is expressed in some form of language; but it consists essentially not in the words or symbols that are employed, but in the meaning that they convey.[1] This meaning must be assumed to be known and to

[1] Mr. Russell objects (*Principles of Mathematics*, p. 47) to this use of the term "meaning"; but his objection does not appear to me to be a very serious one. If I understand him rightly, his contention is that we can properly speak of meaning only when there is some A (such as a word) which refers us to some B, distinct from itself. This is, I suppose, the primary significance of the term. But surely, when we have learned the meaning of a word, we may retain the meaning without reference to the word; and it may still be called a meaning. No doubt some other term might be used, such as "objective"; but no other term seems equally simple and intelligible—especially as we nearly always use words to give definiteness to meanings. Perhaps it may be a more serious objection to the term "meaning," that it tends to suggest something purely subjective, something that is entertained by some particular mind. It is apt to convey such a suggestion. Hegel takes *Meinung* to mean something that is emphatically *mine*; but of course the German for "meaning" is *Bedeutung*, which has not any such reference. The English word does not seem to me to carry any very strong suggestion of subjectivity. When we refer, for instance, to the meaning of the number 2, the meaning of the Greek gods, the meaning of the French Revolution, the meaning of the State, the meaning of the uniformity of Nature, etc., it seems clear that we are not referring to anything that is necessarily present to any individual mind. But any term is liable to be misinterpreted. One has to be content with the one that is on the whole freest from misleading associations. It may be added that Professor Baldwin (*Thought and Things*, vol. i, p. 132) suggests the identification of Meaning with *Whatness*. But, as here understood, it might refer to an *entity* quite as well as to a *quiddity*. In a wide sense of *Whatness*, however, it may be taken as equivalent to Meaning.

persist. In simple cases this seems sufficiently obvious. When we say that "12 is more than 10," we assume that the meaning of 10 and 12 is known and remains constant; and also that we understand what is meant by more and less, and that the meaning of these terms is likewise fixed. We assume also that the ascription of a relation of more and less as subsisting between 12 and 10 has a permanent significance. Similarly, when we say, "This outlook is beautiful," we assume that there is a definite and persistent meaning in the terms "outlook" and "beautiful," that "this" also conveys a definite and persistent meaning, and that the ascription of beauty to an outlook has also a meaning which is intelligible and persistent. A meaning is sometimes called a Universal; but it should be remembered that what is meant may be an individual object, such as the Sun or Julius Cæsar. What is properly to be understood by a Universal, we shall have to consider later.[1]

8. *Categories*.—It is evident that the meanings conveyed by judgments may be of very different kinds. "This dog is brown" gives a different kind of information from "This dog is a retriever"; and the meaning of both is of a very different kind from that conveyed by "This dog is old" or "This dog is mad." Aristotle attempted to classify the kinds of information that are conveyed by judgments, and called them Categories. The significance of this also will have to be considered later.[2] The discussion of the relations of different categories to one another is certainly one of the most fundamental problems of philosophy.

9. *Valuation*.—We have seen that belief involves the selection of particular judgments and the rejection of others,

[1] The importance of Meaning has been much emphasized in recent times. Professor Meinong's remarkable work *Ueber Annahmen* has probably thrown more light on the subject than anything else that has been written. But certainly the first chapter of Mr. Bradley's *Principles of Logic* also contributed very powerfully to the establishment of a clear distinction between what is meant and what is pictured; and the discussion of Internal and External Meaning by Royce (*The World and the Individual*, vol. i, pp. 24–36) threw further light on this distinction. Lady Welby's rather too discursive book, *What is Meaning?* helped to call attention to the subject. See also below, Chapter V, § 6, and Husserl's *Logische Untersuchungen*, vol. ii, pp. 52 *sqq*.

[2] See below, Book II, Chapter I.

and that such selection and rejection are dependent on a certain kind of valuation. Now value appears to be a category or system of categories, and its significance will have to be dealt with at a later stage.[1] In the meantime all that is important is that we should bear in mind this general fact of valuation—the fact, that is to say, that certain things, and especially certain judgments, come to be regarded, for various reasons, as being preferable to others.

10. *Laws of Thought.*—Next we have to notice that our selection of judgments is subject to certain conditions, some of which are involved in the very nature of selection itself. To select one thing is to reject another ; and this applies to judgments, no less than to other things. The judgment that has to be rejected, when a particular one is chosen, is commonly called the contradictory of the latter ; and the fact that the selection of the one involves the rejection of the other is sometimes said to be a fundamental law of thought. This phrase is somewhat misleading, and we shall have to consider its exact significance shortly.[2] For the present it is enough to notice the very obvious fact that we cannot believe all judgments ; but that to believe one means necessarily to disbelieve some other.

11. *Implication.*—This leads us, further, to the recognition of the general fact of implication. In believing a particular statement we do not always ask ourselves definitely what other statements we are rejecting. It is only on reflection that we see definitely that in affirming one thing we are denying another. Similarly we do not always realize all that we are affirming in accepting some particular statement. It is the special business of Logic to bring out such implications. For the present it is sufficient to call attention to the general fact. This whole chapter is concerned with implications ; but at present we are only taking note of those that appear to be very obvious and indisputable.

12. *Objective Order.*—The facts indicated by such expressions as Law of Thought and Implication call our attention to the circumstance that the selection of beliefs is not

[1] See Book II, Chapter VIII. [2] See Chapter VI.

purely a matter of individual choice. This also appears to be, in many ways, sufficiently apparent. The valuation on which selection depends is clearly not altogether arbitrary. We cannot like whatever we like. Some things come to us as likeable and others as the reverse. And though people may, and sometimes do, believe judgments that contradict one another, they cannot do this persistently without getting into entanglements which they do not like. This leads us to see that the order of our thought is not purely subjective, but is dependent on a certain objective order that lies in the nature of things. How such objective order is to be conceived, we shall again have to consider at a later stage.[1] But even at this point it seems clear that we cannot interfere with the arrangements and interrelations of numbers ; that we cannot make black white or green red, that what is intrinsically unpleasant cannot be experienced as pleasant, and even that what is essentially worthless cannot, with any great persistence, be valued.

13. *Truth and Reality.*—The recognition of objective order enables us to see what is meant by truth and reality. It seems clear that people may believe what is not true ; yet in believing it they are regarding it as true. To believe anything is to regard it as having a place in the objective order ; but the objective order is not made by our beliefs. To believe that $7 + 5 = 13$ is quite possible, but does not affect the real relations between these numbers ; nor is the madman who believes himself to be a king any the nearer to the dignity of royalty. Hence truth has to be definitely distinguished from what we believe. In general, it seems sufficient to state at present that a belief is true when the order that we set before ourselves in holding it is the objective order. Similarly, we may state that what we mean by reality is the objective order. But these statements call for a good deal of discussion, which it will be best to reserve for future chapters.[2]

14. *Transition to Following Chapters.*—The object of the present chapter has merely been to indicate the chief

[1] See Chapter VII.

[2] See especially Chapter VIII.

things that are implied in the mere fact of belief. Obviously several of the things that have thus been indicated call for a good deal of further consideration. In particular, it seems important to consider more carefully the general import of judgment, and to see more definitely what is meant by Laws of Thought, by Truth and Reality, and by the general conception of Order. After that, we may be in a position to discuss some problems of a more detailed kind.

CHAPTER V

THE IMPORT OF JUDGMENT

1. *General Statement of the Problem.*—The account that has now been given of the general nature and implications of Belief should enable us to realize the importance of the distinction between its subjective and its objective aspects. The subjective aspect is the acceptance of a judgment as true by some individual consciousness. The objective aspects are the meaning of the judgment and the meaning of truth. It is the former of these meanings that we have now to consider; and, in order to do this, we must try to make clear the general place of judgment in the world of knowledge. Now, a judgment is a thought; and it will be best to begin with an attempt to see what is to be understood by thought. Here, again, what is chiefly important to do is to distinguish between the subjective and the objective implications of this term.

2. *The Meaning of Thought.*—It seems obvious enough that thought has two aspects. I think a thought: I have the apprehension of a thought: I have the thought of a thought. *That* I think, is one thing: *What* I think, is another. The former is my own individual act, and is distinct from the action of any other individual. The latter is common property. Two people may think the same thought: it may be communicated by one person to another: it may be transmitted from one generation to another. Plato's thinking belongs to the remote past, but the thought of Plato may still be our thought. Now, it is the latter aspect of thought —its objective aspect—with which we are at present concerned.

The failure to distinguish between these two aspects of thought has been responsible for a good deal of confusion.

In particular, it is the chief source of ambiguity in the use of the term "idealism." The general meaning of this term is that what is thought is real; but this may be understood in senses that are not only very different, but that are even somewhat sharply contrasted. Parmenides appears to have been the first who insisted that what is thought must be regarded as real; and his contention was in more modern times repeated, almost in the same words, by Descartes. The contention of the former led to the idealism of Plato: that of the latter, to the idealism of Spinoza. These types of idealism were afterwards more fully developed by Hegel. All these forms of idealism rest on the view that the world, as apprehended in thought, is real. But there is another sense in which the term "idealism" is sometimes understood—the sense that is best represented by Berkeley. According to this view, reality is found only in individual consciousnesses and their thought processes. When this view is fully developed, it becomes a scepticism, such as that of Hume, and is then almost the direct antithesis of the other type of idealism. What they have in common is the emphasis on thought; but the one emphasizes the objective aspect of thought, while the other emphasizes its subjective aspect. The two views sometimes approximate to one another. Even Berkeley made some approximation to the Platonic position; and Leibniz may perhaps be taken as representing a still closer approximation between the two views. Nevertheless, they are essentially distinct and even opposed. Now, it is not our business at present to consider the validity of either of these types of idealism.[1] They are referred to here only to illustrate the distinction between the subjective and the objective aspects of thought. This may be illustrated also by the saying of Goethe, that all the thinking in the world (the subjective process) does not bring us to thought (the objective result). Now, it is with the objective aspect that we are at present concerned. We are not concerned with the absolute reality of what is thought, but only with its "objective reality," in the sense in which that expression was used by Descartes.

There is, however, another distinction that it is important

[1] For further consideration of this subject, see Chapters VIII, IX, and X.

to bear in mind at this point. Not everything that is apprehended by an individual consciousness is a thought. It is generally believed, and not without ground, that the lower animals do not think; yet it seems almost certain that most of them apprehend objects. Some human beings also do not appear to think much; but those who think least have often the liveliest apprehension of things. The difference lies mainly in the degree in which the element of universality is definitely present in the apprehension of objects. This is a point that calls for further explanation.

3. *Universals.*—Here we come upon one of the most important aspects of knowledge. If there were no universality, it seems clear that there could be no thought. Scepticism, such as that of Heraclitus or that of Hume, is based in general on the denial of universality. Heraclitus said that we "cannot step into the same river twice"; and Hume said that every perception is distinct and independent. Yet it is obvious that we know what we mean by a river, a dog, the colour brown, the number three, the relation of before and after, likeness, rest and motion, beauty, goodness. These are all universals, and it is only by means of these that we are able to think at all. It was Plato, more than any one else, who emphasized this; and in recent times it has been well brought out by Kant and Hegel, by those who are called the New Realists, and others. Now, it is not our present business to consider in what sense such universals are real. It is enough for our purpose that they are real enough to be understood, and to be used as instruments of thought. When it is stated that three brown dogs moved along to the river, one after the other, and then rested, that they were all like one another, beautiful in shape and in good spirits, we may believe or disbelieve or doubt what is stated, but at least we have no difficulty in understanding what is meant, and in understanding it we are thinking. There are no doubt great differences between the kinds of universals that are thus employed. A man who was born blind might have a difficulty in understanding what is meant by brown; and there might be people who had never seen a dog or a river. There may be some inhabited planet

on which there are no such things. On the other hand, there can hardly be an inhabited planet on which there is no rest or motion, no before and after, no number, no likeness, no beauty or goodness. Thus some universals appear to be more necessary and fundamental than others; and it was on those that are most fundamental that Plato concentrated his attention. This distinction we shall have to consider at a later stage.[1] It is simply the fact of universality that has here to be recognized. If there were no such fact, our world would be a chaos—though, indeed, even the conception of a chaos is a universal. In such a world is seems clear that there could be no thought or knowledge. Perhaps the world is such a chaos to some of the lower animals; but it is difficult to believe that it can be entirely a chaos to any conscious being. With that problem, however, we need not at present concern ourselves. We, at least, who write and read, are constantly using universals. Now, what we have next to notice is that a judgment consists in a certain kind of relation that is suggested as subsisting between universals.

4. *Concepts and Judgments.*—Let us keep, for the present, to our three brown dogs. We do not see the dogs, but we have a concept of them; and we have concepts also of three and brown. And the statements "Those are dogs," "Those dogs are three," and "Those dogs are brown," are judgments. They are judgments (or propositions) whether we believe them or not. The meaning of them is the same to one who believes them, to one who disbelieves them, and to one who doubts. Either to believe, to disbelieve, or to doubt, it is necessary that we should first understand. The question, then, is—What is the meaning of these judgments? Do the terms "those," "dogs," "three," "brown," stand for four distinct objects? In one sense, it seems clear that they do. The "those" might be men or horses or trees or houses, instead of dogs. The dogs might be black, and they might be six or seven. The concepts are not necessarily combined, but the judgment states that they *are* combined. The universals, though in a sense *ante rem*, are also *in re*.

[1] See especially Book II, Chapter I.

It is the same dogs that are those and three and brown, that move and rest, and that have all the other characteristics that were mentioned. The full significance of this may have to be considered later.[1] In the meantime, it is enough to notice that a judgment (whether it is true or false) implies that distinct concepts are applicable to the same object. "Three" is utterly distinct from "brown"; but the dogs are said to be both; and, though we may disbelieve it, it is, at any rate, not incredible. Some one might believe it —might, that is to say, accept the judgment as true. Hence, if we admit (which it hardly seems possible to dispute) that such a judgment conveys an intelligible meaning, it seems clear that it must somehow be intelligible that distinct universals may be applicable to the same object. And this appears to be what is implied in all judgments. Any judgment, however, may be disbelieved. We have not yet reached the point at which we can consider what is implied in accepting a judgment as true.

5. *Relation between Language and Thought.*—All the judgments to which we have referred have been expressed in words; and it would be difficult to think of any judgment that should not be so expressed. Yet the same judgment may be expressed in different words. Not only may it be translated into another language, but even in the same language different words may be used, or the same words may be differently arranged, without any essential change of meaning. "These three dogs are brown," and "These brown dogs are three," or "There are three of these brown dogs" do not convey an essentially different meaning, though the one may be taken to imply that the dogs are recognized as being three before they are recognized as being brown, while the other implies the reverse. But this difference seems to relate to a subjective fact, rather than to the objective meaning. It may, for instance, relate to a fact of belief. The former judgment might perhaps be expanded into some such statement as this, "You already believe that these dogs are three: well, I hope you will also believe that they are brown." The implication of the other judgment would be

[1] See Book II, Chapter V, especially § 5.

different. But the essential meaning conveyed by both the judgments is that the dogs are both three and brown. The additional implications relate to the attitudes of particular persons towards the meaning that is to be conveyed. Thus it seems that the meaning of a judgment can be distinguished from the form of words by which it is expressed. And this appears to be true in general of the relation of thought to language. "Green" means the same thing as "the colour that lies between yellow and blue in the order of the spectrum." How meanings are apprehended, we cannot at present discuss; but that we do somehow apprehend them, and that the apprehension of them is not simply the apprehension of the words by which they are expressed, seems sufficiently obvious. There is, however, one special point about meaning that seems sufficiently important to call for attention at this stage—viz. that it may be more or less explicit.

6. *Explicit and Implicit Meaning*.—It is pretty obvious that the meaning of terms is often apprehended in a way that is not fully explicit. Most people understand, in a general way, what is meant by an army—or, to take an ancient illustration, by a heap—though, if confronted by a body of armed men or by a casual collection of objects, they may be in some doubt whether it is rightly to be called an army or a heap. Even a right-angled triangle might be vaguely recognized by the squareness of one of its corners, without any clear knowledge that it contains a right angle. In general, as it is commonly put in logic, the denotation of a term may be sufficiently apparent without any definite apprehension of its connotation. This is especially true of objects the exact nature of which can only be determined by some method of scientific analysis. Water is a very familiar object long before it is known that it is H_2O; but, until this is known, there is always a possibility that the term may be applied—as in the expression "strong water"—to something that has a different composition. In such cases the discovery of the meaning of a familiar term may come as a surprise. A man may be surprised to learn that he is a "rational animal" or a "vertebrate animal" or a "featherless biped," or even that he is a "bachelor." Yet

such a man would probably have known implicitly the facts to which attention is thus directed. But there is no explicit knowledge of meaning until some exact definition has been arrived at.

This statement may, no doubt, be challenged on the ground that some significant terms are incapable of definition. It may be asked how we can define a simple colour or sound or smell, or again how we can define good or beautiful, or perhaps even art or religion or the State. The answer seems to be that there are different ways of defining. A complex term, such as right-angled triangle, can be defined by explaining what is meant by a right angle and by a triangle, and then stating that a right-angled triangle is one that has a right angle. In some cases, such as water, the definition can only be reached by physical analysis. A chemical element or a simple sense-datum or a highly developed form of vital experience, such as an emotion or sentiment, cannot be defined in a similarly analytical fashion. A chemical element can only be defined by stating some of its qualities and modes of action. A colour can only be defined by indicating its place among other colours. A plant or animal is probably best defined by indicating its place in relation to certain types ; an emotion perhaps by its mode of expression and the circumstances in which it arises ; art or religion, by its place in human life ; goodness or beauty, by its relations to certain needs. Even a circle or a straight line can hardly be defined in a way that is at all similar to that in which a right-angled triangle can be defined.[1] Meanings are of various kinds, and the ways by which they can be made explicit are similarly manifold.

Now, what seems thus to be true of the meaning of terms, is also applicable to the interpretation of judgments —the subject with which we are at present more immediately concerned. The meaning of a proposition may be more or less explicitly apprehended ; and it may convey in its wording a more or less definite expression of the meaning that is before the mind of the person who forms it. The statement that "a dog is an animal" would probably convey

[1] On the significance of mathematical definitions, reference may be made to Mr. Russell's *Principles of Mathematics*, p. 15.

much less meaning than was present to the mind of the person who uttered it. He would not only know that it is an animal, but that it is one out of many forms of animal life, and that there are several varieties within that form itself. He would probably also have a pretty definite conception of the type to which it belongs. There is thus a great deal of meaning that is apprehended, but is not made explicit. Similarly when Carlyle and others declare that "Right is Might," it may be taken as certain that they do not mean that these two conceptions are to be identified. What they mean is probably that in human life the rightness or wrongness of an action has a considerable influence in determining the possibility of carrying it out successfully. But this meaning is not made explicit in the wording, and very probably not in the minds of most of those who utter or hear the expression. Such lack of explicitness is, of course, a great source of confusion.

In dealing with judgments, it is often difficult to determine how much meaning is intended to be conveyed. Sir William Hamilton insisted strongly on the importance of making the meaning explicit ; but evidently, if it is not made sufficiently explicit by the form of words, the attempt to make it more explicit must be partly a matter of guesswork. What is important for logical purposes is that, in expressing any meaning, we should as far as possible adopt a form of words that will make quite explicit all the meaning that is definitely intended. It is only when this is done that we can see at all clearly the import of different types of judgment.

7. *Types of Judgment.*—As this is not a treatise on logic, it is not our business to consider all the forms that judgments may assume, and their relations to one another. But some distinctions are of sufficient importance for our present purpose to call for rather more than a passing notice. The chief of these are the distinction between analytical and synthetical judgments (in connection with which some further remarks on definition may be in place) and the distinction between those judgments that are categorical and those that are made subject to certain conditions or limitations.

It was Kant who first emphasized the distinction between

analytical and synthetical judgments. His chief illustrations, as is well known, were the judgments that bodies have extension and that bodies have weight. The former he declared to be analytical, the latter synthetical. The ground for this distinction is that what we mean by body includes the meaning of extension, whereas it does not include that of weight. In other words, the former judgment only makes an implicit meaning explicit, whereas the latter connects two distinct meanings with one another. Some are inclined to deny that judgments of the former type ought to be called judgments at all; but they are at least, in many cases, valuable forms of statement, since an implicit meaning is often far from being a clear meaning. If it is true, for instance (a question that we need not here discuss), that the conception of body includes that of extension, it is probably not true that every one who thinks of body realizes that he is thinking of something extended. He may vaguely suppose that it might be a mere point or even some entity without spatial relations. To bring out what is implicit is a step towards definition; and definitions are a very valuable form of judgment. Unless, however, we limit our view of definition to instances of a very formal type, it would hardly be true to say that definitions are always analytical. The definition of water, of fish, perhaps of goodness, art, or religion, seems to bring out meanings that are not even implicitly contained in our first apprehensions of these objects. They depend on discoveries which reveal to us the essential nature of objects that are at first only superficially known. If such discoveries are to be called analysis, it would be doubtful whether the judgment that bodies have weight is not quite as analytical as the judgment that they have extension; for Kant himself did as much as any one to show that body could not be clearly conceived without a certain kind of attractive force. Hence the distinction between analytical and synthetical judgments is one that, if used at all, has to be interpreted with a good deal of care. It seems true to say that all real judgments are synthetical, in the sense that they combine conceptions that are not necessarily known to be combined.

With regard to the distinction between judgments that are categorical and those that are not, it is of course obvious

enough that there is a considerable difference between such a judgment as "a dog is a vertebrate quadruped" and "if you drink poison, you will suffer," or "if I am right, you are wrong," or "there has either been a flood or a fire or an earthquake," etc. It is well to note, however, that they are all categorical, in the sense that they positively assert something. The difference lies in the degree of definiteness in the knowledge that is conveyed. If we look up at the sky in a clear night, we may begin by affirming of the heavenly bodies that we see "These are either fixed stars or planets." This is an affirmation, but not a very definite one. We may advance from this to the statement "If they twinkle, they are fixed stars." On this basis, we may then affirm "Some of them are fixed stars," and from this we may proceed to the definite statement that this, that, and the other is a fixed star. Thus there is an advance from the indefinite disjunctive, through the hypothetical, to the definite categorical. But they are all aiming at some categorical affirmation.[1] The negatives are similarly formed. From the statement "If they do not twinkle, they are not fixed stars," we proceed to "Some of them are not fixed stars," and from that to the definite determination of those that are to be excluded from the class.

It should be noted at this point that, in the brief statement that I have just given, I have departed from the view that has become somewhat traditional in recent Logic. It is now commonly contended that the disjunctive form represents the highest type of judgment. Like many things that are good or half-good in philosophy, this doctrine appears to be traceable to Kant—who took it, however, from the traditional arrangement of judgments in Formal Logic. He regarded the disjunctive judgment as expressing the most complete form of relation, combining the categorical and the hypothetical; and as furnishing the basis for the category

[1] "Categorical" is here used in a somewhat wide sense, so as to include affirmations or negations of a complex character. It does not exclude the statement of qualifications and conditions, but only the presentation of alternatives and hypotheses. It is important here to bear in mind the distinction drawn by Dr. Keynes between the conditional and the genuine hypothetical; but, as this is not a treatise on logic, the subject cannot be further pursued. I am trying to confine myself to what appears to be fundamentally important.

of reciprocal action, in which substance and cause (i.e. permanence and change) are most definitely co-ordinated. But it is difficult to see how anything of this kind can be said to be expressed by disjunction ;[1] or how the disjunctive judgment can be held to represent the unity of a system—though it may perhaps be said that a certain kind of unity is implied in it. If, for instance, the colours of the spectrum are regarded as forming a system, this would seem to be most definitely expressed conjunctively, by saying "The colours contained in the spectrum are red, orange, yellow, etc." From this we may no doubt derive a disjunctive judgment, to the effect that any particular colour in the spectrum is either red or orange or yellow, etc. But this is surely a very imperfect type of judgment. We reach a more perfect one when we discover some ground for determining *which* of these possible colours it is. But the further consideration of this and similar problems must be left to writers on Logic.[2]

In connection with the disjunctive judgment, it may be well to refer to another controversial subject, which, though in itself somewhat trivial, may help to bring out the importance of the distinction that I have sought to make between the judgment, strictly so called, and the proposition. There has been a long-standing disagreement between those who treat Logic in a formal way (such as Dr. Keynes[3]) and those who (like Mr. Bradley[4]) treat it rather as concerned with the general doctrine of knowledge, with reference to the interpretation of "or"—whether it is or is not to be regarded as excluding the possibility of "and." It is natural, and indeed right, that those who start from the proposition—i.e. from the verbal expression of a meaning—should attach only the minimum of significance to the words that are used. From this point of view it is unsafe to assume that "or" is intended to exclude "and"; just as it is unsafe to assume that "some" is intended to exclude "all." On the other hand, if we start from the judgment—i.e. from the meaning itself—our object naturally is to make the meaning as definite

[1] Many writers have criticized Kant on this point—Schopenhauer among others.
[2] See Bosanquet's *Logic*, Book I, chapter viii, and *Essentials of Logic*, Lecture VII.
[3] *Formal Logic* (4th edition), pp. 270–81, and 283 note.
[4] *Principles of Logic*, pp. 124–5.

as possible; and, when we proceed to express the meaning in words, we are led to try to make the words that are used convey the maximum of meaning. If it is said that "This is either A or B," it is generally safest not to assume that it is meant to exclude the possibility that it may be both A and B; but, if we really mean that this possibility is not to be excluded, it would be best to re-word the proposition, so as to make it read "This is either A or B or both A and B"—e.g. "He is either a fool or a knave or both." It all depends on the question, whether we start from a given proposition, which we seek to interpret, or from a given judgment, which we seek to express in propositional form. Apart from this, however, it would seem that the interpretation which assigns the minimum of meaning to "or" is the best adapted for formal or analytical treatment. Hence Mr. Russell, though starting essentially from the judgment (in the sense in which that term is here understood), adopts the non-exclusive interpretation.[1]

The consideration of these types of judgments leads us to the question of Modality, which seems to demand a section to itself.

8. *The Modality of Judgments.*—It is of some importance to notice the significance of modality at this point, partly because it is on the whole not very adequately dealt with in most of the logical textbooks,[2] and partly because it raises some problems that will concern us at a later stage—especially that of the interpretation of possibility and necessity.

There appear to be three main senses in which modal

[1] *Principles of Mathematics*, p. 15. It should be noted, however, that Mr. Russell used the terms in a different way from that which is here adopted. What he calls propositions I call judgments, and what he calls judgments I call beliefs. I hope what is stated above will help to explain why I think it important to distinguish the proposition from the judgment. See also below, Chapter VIII, § 5.

[2] In the purely formal treatment of Logic it is apt to be disregarded, or only slightly referred to, as raising issues that are essentially extra-logical. But even in less formal methods of treatment it is, in general, not very fully considered. Lotze's treatment, for instance (*Logic*, Book I, chapter ii), is rather conspicuously defective. This is partly due to the fact that the distinction between "can" and "may" is not so easily expressed in German as in English. It has to be brought out somewhat cumbrously as that between "können" and "sein können." See, for instance, on this point Professor Meinong's book *Ueber Möglichkeit und Wahrscheinlichkeit*, p. 55.

propositions may be interpreted. Some instances may best enable us to bring them out. Take, as an example of a problematical judgment, the assertion that "the soul may be immortal"; of an assertorial, that "all men are imperfect"; and of an apodeictic, that "God must delight in virtue"; and let us consider the different meanings that may be assigned to them.

The first interpretation that suggests itself is one that distinguishes them simply by the degrees of certainty or uncertainty with which we are entitled to believe the categorical propositions that would be left if the signs of modality were removed from the first and third. On this interpretation, the first proposition means that there is some doubt with regard to the immortality of the soul; the second, that the imperfection of human beings is empirically certain; and the third, that God's delight in virtue is not open to any doubt at all. From this point of view, the *judgments* as such are not affected by the signs of modality, but only the degrees of belief with which we are entitled to entertain them. This is sometimes expressed by saying that the modal signs affect the copula, rather than the predicate; but it seems better to say that they imply more or less complex attitudes of belief. The first would be expressed more fully, on this interpretation, by saying "I am uncertain (or, it is uncertain) [1] whether the soul is or is not immortal"; the second by saying "I believe (or, I am entitled to believe) that all men are imperfect"; the third by saying "I am fully assured (or, I have a right to be fully assured) that God delights in virtue."

But we may also interpret modality as definitely affecting the predicates. On this interpretation, the first proposition would mean, "The soul is of such a nature as to have the possibility of immortality"; the second, "All men are actually imperfect"; the third, "God is a being whose nature necessarily implies delight in virtue." Such judgments call for further interpretation, which would consist in calling attention to the definite conditions that are implied in the predicates.

[1] It seems necessary to use these two modes of expression, to indicate degrees of objective reference. When I say "I am uncertain," there is generally some ground for uncertainty implied; but the ground may be more or less consciously apprehended. When it is definitely apprehended, we are led to the third interpretation,

The meaning of the first would be made more explicit by pointing out in what circumstances the soul would actually be immortal. We might, for instance, be able to say that a soul that is rational or fully self-conscious is immortal; or that it earns immortality by merit, or in some other way. In the second case, the empirical evidence on which the proposition rests might be definitely referred to. It might be changed into the form "No men who are perfect have ever been discovered." In the third case, it might perhaps be explained that a being who did not delight in virtue would not be called God. This interpretation of modality brings us to the conceptions of the possible, the actual, and the necessary, to which we shall have occasion to refer at a later stage.

The third interpretation, which may be held to be the most definitely logical, is one that turns on the suggestion of an implied ground. On this interpretation, the first proposition would mean "Certain hypothetical grounds lead to the affirmation that the soul is immortal"; the second, "Certain grounds that are empirically established lead to the affirmation of human imperfection"; the third, "Certain grounds which are axiomatic or indisputable lead to the affirmation that God delights in virtue." The meanings, from this point of view, might be more fully set forth in some such way as this. In the first case, we might state that "If the soul is a substance, it is immortal"; in the second case, "If finite beings are imperfect, all men are imperfect"; in the third case, "If God is good, he delights in virtue." The modality is thus thrown back into a hypothetical antecedent.[1]

The last interpretation leads directly to the question of inference, on which a few words may here be added.

9. *Judgment and Inference.*—In what has now been noted about judgment, it has already become apparent that judgment leads to inference. This is seen, more particularly, in the case of the hypothetical judgment. The statement "If

[1] It will be observed that in this case, but not in the preceding, we are led to what Dr. Keynes characterizes (*Formal Logic*, Part II, chapter ix) as the true Hypothetical.

it twinkles, it is a fixed star," leads us readily to the further statements "It does twinkle," "It is a fixed star." Similarly "If it barks, it is a dog," leads us to "It does bark," "It is a dog." What is called the major premises in a syllogism of the first figure, is probably best regarded as a hypothetical. Thus—"If any being is an animal, it is mortal"; "Man is an animal"; "Man is mortal." The important fact here is *implication*. Certain characteristics imply others. Such implications may come out in a variety of different ways. The twinkling of a heavenly body is a very simple means of identification, and has but little real connection with what we mean by a fixed star. Yet it may serve its purpose. The barking of a dog is also a rather small part of the meaning that we attach to "dog"; but it also may serve for identification. The recognition that man is an animal carries us very much further in the development of the meaning that is to be attached to "man" and "animal"; but, simply from the point of view of identification, it serves the same purpose as that which is served by "twinkling" and "barking." The essential point is that in all such cases we are dealing with complex meanings. What we mean by a fixed star includes, though as a very subordinate element, what we mean by twinkling. What we mean by dog includes what we mean by barking. In the third instance, what we have to say is rather that what we mean by animal has been connected with what we mean by mortal. But in all three cases there is the fact of implication. Twinkling implies fixed star; barking implies dog; animal implies mortal. Again, man implies animal, and so implies mortal. Inference of this kind falls naturally into the form of syllogism.

But again there is what is called Immediate Inference. From "fixed stars twinkle" we can infer that "what does not twinkle is not a fixed star." It may be urged, however, that in this case we are only making explicit a part of the meaning that was not definitely expressed. When we say that fixed stars twinkle, we probably have in our minds that there are two kinds of heavenly bodies, those that are fixed stars and those that are not; and that the former twinkle, while the latter do not. The second judgment selects a part

of this complex meaning. But, in the same way, when we state that man is mortal, we are selecting a part of the complex meaning that has been attached to "animal." Thus to select the relevant part of a complex meaning may rightly be regarded as the formation of a fresh judgment. For, as we have seen, a judgment cannot rightly be regarded as expressing anything more than what it makes explicit. What is implicit in it serves as the basis for other judgments.

10. *Objective Order implied in Thought.*—In thus touching upon some of the fundamental points in logic, what chiefly concerns us is the implication of objective order. If the twinkling of stars, the barking of dogs, the dying of animals, were not more or less persistent facts, and if there were not many such persistent facts in the world that we apprehend, the whole system of implications would collapse, and there would be no such thing as thought.[1] Hence some of the ancient sceptics, who doubted any such persistence of connected meanings, sought to abandon thought, and with it language, and to limit their expressions to pointing at individual objects. This was, in a way, logical; and yet, in saying that it was logical, we imply that they were thinking. As human beings, we cannot really abandon thought. We can only try to understand what is implied in it. In order to do this, we must now proceed to consider more definitely what are its fundamental laws or conditions. The way has been prepared for this by the consideration of the meaning of judgment.[2]

[1] See below, Chapter VIII, especially § 5.

[2] The treatment of judgment here is necessarily somewhat sketchy. It is a subject to which a good deal of attention has recently been given. The writings of Professor Meinong, in particular, have thrown much fresh light upon it. For some account of his views, reference may be made to three articles by Mr. Russell in *Mind*, 1904, and to the article on "Objectives, Truth and Error," by Mr. E. H. Strange, in *Mind*, October 1914. Mr. Strange's paper on the import of judgment in the *Proceedings of the Aristotelian Society*, vol. xvi, should also be consulted. Professor Dewey's treatment of the subject (*Studies in Logical Theory*) is interesting, but seems to me too purely psychological. It is important to distinguish the psychological treatment of belief from the logical treatment of judgment.

CHAPTER VI[1]

LAWS OF THOUGHT

1. *Meaning of Laws of Thought.*—That, in some sense, thought is subject to certain fundamental conditions is obvious. In particular, every one must recognize that, if our thinking is not consistent with itself, there must be something fundamentally wrong with it. Hence attempts have been made to formulate the fundamental laws that are necessarily involved in all thought. The laws that are most commonly stated are those of Identity, Contradiction, Excluded Middle, and Sufficient Reason. That in some sense these laws do condition our thinking can hardly be denied; but in what sense we are conditioned by them, is by no means so apparent. In order to see what the exact sense is, it may be well to notice first certain interpretations of them that appear to be definitely incorrect.

(*a*) They are not to be interpreted psychologically, i.e. they are not to be regarded as laws of the subjective processes of our thought, in the sense in which the principle of association may be said to be such a law, or in the sense in which the use of images or of some form of language may be said to be a general condition of thinking. Psychological conditions such as these influence our thinking in the sense that it is difficult, or even impossible, to carry on any process of thought without observing them. This can hardly be said to be true of the fundamental laws of thought. It is quite easy to think inconsistently. The difficulty is all in the opposite direction. Not only does it seem clear that untrained minds are apt to fall into contradictions. Writers of high repute, such as Emerson or Carlyle or Nietzsche,

[1] This chapter is reproduced, with some modifications, from an article that was published in *Mind*, July 1916.

may almost be said to glory in their inconsistency; and even systematic writers on logic, such as J. S. Mill, seem pretty obviously to be guilty of self-contradiction or inconclusiveness on several occasions. It may be said, no doubt, that this is due to want of thought; but this appears to be true only in the sense that the thought has not been sufficiently clear and persistent. In determining that thought should be clear and persistent, we seem to be asking for more than that it should simply be thought. Moreover, there are some difficult problems, such as motion, time, freedom, in which it seems to be true that the more strenuously they are thought about, the more liable we are to fall into contradiction with regard to them. There is nothing parallel to this in the case of laws that are of a purely psychological character. It seems clear that the Laws of Thought are objective, rather than subjective, in their character.[1]

(*b*) Yet they are not to be interpreted as conditions of reality. It may be true that nothing that is real is self-contradictory; but it does not appear that we are entitled to affirm this without investigation and discussion. If reality be understood in the sense of simple existence, it has been definitely affirmed by some—e.g. Dr. Bosanquet—that some things that exist are self-contradictory. This may be false, but it is not obviously absurd. Things that seem to have a certain colour, when looked at in a particular way, seem to be without it when they are differently regarded. This apparent contradiction may be removed; but it seems clear that we are led to remove it, not by the appearance of the thing, but by our dislike of contradictory affirmations. Again, if reality be understood in a different sense, as opposed to mere appearance, it is not at once apparent that reality in this sense must be self-consistent. We cannot assume that the actual is rational, though we may take it as a working hypothesis, or even be able to prove it by an elaborate course of argument.[2] Parmenides may on the whole be

[1] I take this to be what is meant by Mr. Russell in his contention that what are called Laws of Thought are in reality Laws of Things. But this can only be maintained by giving a rather unusual meaning to "Things." It seems best to say that they are the conditions of intelligible meaning and valid inference. See *The Problems of Philosophy*, chapter viii.

[2] The chief difficulties are dealt with in Book III.

regarded as the first philosopher who definitely sought to maintain the rationality of the actual; but Zeno, his chief disciple, was apparently only able to defend his position by urging that any other view led to difficulties and contradictions that were at least quite as great as those involved in it. Plato, largely by reflection on the work of Parmenides and Zeno, was led to a fresh effort to maintain the rationality of the actual; but he maintained it by the method of dialectic—i.e. by showing the contradictions that are involved in any way of thinking that does not grasp reality as a whole. This line of thought was, in more modern times, elaborated, with German thoroughness, by Hegel; and, still more recently, it has been reinforced, in a more tentative way, by Mr. Bradley and others. According to any view of this type, the self-consistency of the whole involves the contradictoriness of all partial views of it. If a doctrine of this kind is correct, self-consistency can only be established as an ultimate result of thought about reality, not assumed as a fundamental presupposition. It is, moreover, very difficult to establish a view of this kind in such a way as to make the coherence and self-consistency of ultimate reality thoroughly clear; and, until such a doctrine is definitely established, it cannot be held that there is any inherent absurdity in the views of those who doubt or deny that ultimate reality can be apprehended as a self-consistent system. Such doubt or denial may either be set forth in a definitely sceptical form, such as that of Gorgias, or it may simply be stated as an objection to the view that the nature of reality can be intellectually apprehended. It may be supposed to be apprehended by some form of intuition or faith, rather than by clear thought. Heraclitus, for instance, seems to have maintained that contradictoriness lies in the essential nature of things; and it appears to have been largely in opposition to him that Parmenides was led to formulate his doctrine. Plotinus, again, partly following Plato, held that reality can only be grasped by intuition, not in a definitely intellectual way; and, in our own time, a similar view has been set forth by M. Bergson, and, in a somewhat different way, by Mr. Balfour, with a great deal of eloquence and persuasive power. Kant also urged that,

in attempting to form a coherent view of the universe, thought falls inevitably into self-contradiction and that ultimate reality must be held to be incomprehensible. He did not, however, recognize the possibility—at least for human minds—of any intuitive apprehension of reality, but only urged that certain views about it might rightly be entertained on the basis of moral faith, as fundamental postulates. He recognized, moreover, that the views entertained on this basis were self-contradictory, and hence incomprehensible by the human mind. The utmost that we could hope with regard to them—e.g. with regard to the postulate of freedom—is that we might "comprehend their incomprehensibility." Now, we are not at present concerned with the truth or falsity of any of these doctrines. But it can hardly be maintained that they are *primâ facie* absurd; and hence we are hardly entitled to assume, as a fundamental presupposition, that reality is self-consistent. The tension of opposites, that was emphasized by Heraclitus, has still to be recognized as a fundamental aspect of our universe, however we may seek to reconcile them.[1] Fundamental laws of thought must not, therefore, be based on the nature of reality.

(*c*) It is more legitimate to regard them, with Kant, as being of the nature of ideals or regulative principles. But even this view is subject at least to some qualification. In thinking about reality we are trying to grasp its essential nature. If this essential nature is not self-consistent, it cannot be, in any final sense, an ideal for thought that it should be so apprehended. It would seem best to say rather, as Mr. Bradley does, that the effort after self-consistency is a "rule of the game" of thinking. But of course this is a somewhat playful way of expressing what is meant. The attempt to apprehend the nature of reality is not a game. It is rather the most serious business of life; and even those who doubt the efficacy of thought as the instrument of such an apprehension, have to recognize that it

[1] An attempt is made in Book III, Chapter IV, to show that we need not suppose any ultimate contradiction in reality. But this is not an assumption that we are entitled to make at the outset. We may think ourselves fortunate if it can be shown at the end.

is the only instrument that human beings possess in any definite form. It might be best, therefore, to describe what are called the fundamental laws of thought as the chief implications that are involved in the use of this instrument.[1] Accepting this as a general statement of what is to be understood by these laws, we may now proceed to consider more definitely how they are to be interpreted. In doing so, it will be convenient to consider separately the implications of conception, the implications of judgment, the implications of reasoning, and the implications of belief.

2. *Implications of Conception.*—The essence of a conception lies in the definiteness of its meaning.[2] Until it has been clearly defined, we can hardly be said to apprehend it at all. In the case of numbers, for instance, it can hardly be doubted that even an animal is more or less aware of the difference between a large number of things and a small number. Some savage peoples do not appear to have a much more definite apprehension of numerical relations than this. Most civilized people, on the other hand, are able to count things and calculate their relations. But it is only the trained mathematician who has a clear apprehension of number as such. Similarly, there are but few people who can be said to know definitely what is meant by life, art, religion, morality, government, truth, reality, value, and many other concepts ; although almost every one is able to make some use of them for practical purposes, and even to think about them in a vague way. It is only when they are clearly defined that they acquire a fixed meaning ; and even then further reflection upon them may lead to some modification in their definition. But they cannot be employed

[1] I need hardly state that I am not here admitting that thought can be properly described as an instrument. My point is that, even if we say, with M. Bergson, that the intellect is only an instrument that has a certain value for practical purposes, we have still to recognize the conditions under which that instrument works. The less we ascribe to thought, the better may we be able to see the irreducible minimum of its implications.

[2] The concept has been somewhat hardly treated by some recent logicians. Hegel fully recognized its place, but some of those who are largely to be regarded as his followers (led by Mr. Bradley) have been rather disposed to ignore it. See, on this subject, Professor Muirhead's *Philosophy and Life* ("The Place of the Concept").

for the purposes of exact thought until their meaning has been at least provisionally fixed. When this is done, the concept has a certain permanence, and is distinguished from every other concept. The concept of a circle, for instance, can be clearly grasped, and marked off from that of an ellipse or any other curve. Every instance of a circle is an instance of one definite type, and not of any other. There are thus involved in all cases of clear conception the aspects of identity and difference; and it is here that we see the significance of the first of the so-called laws of thought. A meaning is identical with itself, and distinct from every other. This does not, of course, involve that the meaning may not be changed. There is perhaps no term that is not liable to have its meaning changed in some degree from time to time. Even in mathematics this occasionally happens, and in the more concrete sciences—especially those that are concerned with human life—it happens with considerable frequency. But when the meaning is changed, we are no longer dealing with the same concept, though we may be dealing with a closely related one. Clear thought is not possible unless we continue to use our terms in exactly the same sense. We cannot make any definite statements about unity, motion, redness, sweetness, pain, or any other concept, unless we are able to assume that every time the term is used it conveys a meaning that remains identical with itself, and is distinct from any other meaning. If we mean by religion sometimes one thing and sometimes another —even if the two things are very closely related—if we use it sometimes in a sense that would include Fetichism and sometimes in one that is only applicable to such religions as Buddhism or Christianity, our thinking about religion is almost certain to be, in some degree, fallacious. It was this, I believe, that Parmenides had in mind when he first formulated the principle of identity. Being, he urged, must always mean being, and must always be distinguished from non-being. Plato, in like manner, contended that a definite meaning must be assigned to rest and motion, likeness and unlikeness, one and many, justice, knowledge, beauty, goodness, and every other fundamental concept. Otherwise there can be no clear thinking. It is important to observe—and

it was fully recognized by Plato—that the fixity and eternity of these concepts do not imply that the particular objects to which they may be applied have any similar fixity. Nor does it imply that an object to which one concept is applicable may not also have another concept applied to it which is different and even opposed in meaning. A thing that, from a certain point of view, can be regarded as one, may also be regarded as many, from a different point of view. The earth may be at rest with reference to us, and in motion with reference to the sun. What we *mean* by one and many, by rest and motion, is not affected by such applications. In this sense, then, we seem to be entitled to maintain that "every concept is a meaning timelessly identical with itself and timelessly related, by relations of contrast or resemblance or otherwise, to other concepts in the world of knowledge." [1]

It is important to bear in mind, further, that, in recognizing the element of identity in the concept, we are not excluding the aspects of difference that go along with it. In fixing the meaning of a concept, we are at the same time marking it off from every other concept. Red is red, and it is not blue. Moreover, we have to remember that every instance to which a concept can be applied is distinguishable from every other instance. Every instance of redness is distinguishable from every other instance. But each instance is identical with itself. The redness of this fire at this moment is that particular case of redness, and not any other; and every time we refer to that particular redness, we are referring to the same identical object. The meaning of the particular instance does not change, any more than the meaning of the general concept.

If this interpretation of the principle of Identity is correct,[2] it enables us to see more clearly what is to be understood by a law of thought. It is not the statement of a psychological fact. Few people do have or retain such definitely fixed meanings as are here referred to, except in mathematics and some other technical subjects in which accuracy is important. Neither is it a statement about

[1] Professor Pringle-Pattison, *The Idea of God*, p. 345.

[2] See below, §3, for some further consideration of it, in relation to judgment.

existent things. A particular redness may disappear as soon as it is observed, and may never recur again. Even a class of animals or plants may gradually be transformed. Nor is it a statement about ultimate reality, which may be as changeable as the flux of Heraclitus or of M. Bergson. Nor, again, is it an imperative that we are bound to obey. It is quite possible to maintain that it is a mistake to try to determine either general concepts or particular instances in this definite way. It might very well be contended, for instance, that it is misleading to seek for a precise definition of religion. It might be urged that this is only a convenient term for grouping together a number of facts that have certain affinities with one another, but to which no one definite meaning can be applied—just as the term "heretic" may be used to group together people who may differ as much from one another as they do from some recognized authority. Similarly, it might be urged that a definite conception of the State—say, that held by Treitschke, for instance—is highly misleading and even mischievous; and that it is much better to content ourselves with some vague conception that is sufficiently serviceable for practical purposes. Or it might be held that it is better to have no conception of God—or only a vague and variable one—than such a clearly fixed one as that of Calvin or perhaps even that of Spinoza. Again it may be urged—as by Bergson, Nietzsche, and the Pragmatists—that *all* definite concepts have this misleading character, and that for any final truth, if there is any absolute truth at all, we have to rely on intuition.[1] Even so, however, it would seem that we ought at least to have some clear conception of what is meant by truth, by intuition, by misleading, by mischievous, by better and worse. If we are to think at all, we must have *some* concepts that have a definite and fixed meaning. The law of thought, in this case, is simply a statement of what is involved in anything that can be regarded as a definite thought. It may sometimes be wise not to think definitely,

[1] The dialectic of Plato and Hegel, by which the inadequacy of certain conceptions is shown, is of course very different from this. The conceptions have first to be made clear and definite before their inadequacy can be brought out. See below, Book II, Chapter I.

or not to think at all. There may have been wisdom in Goethe's Witches.

> Die hohe Kraft der Wissenschaft
> Der ganzen Welt verborgen ;
> Und wer nicht denkt, dem wird sie geschenkt,
> Er hat sie ohne Sorgen.

Still, thinking is thinking, and it has its implications. Similarly, a picture is something that can be seen. It may be a poor thing. It might be much better if it could not be seen ; but, in that case, it would hardly be a picture. It might even be better—as Plato sometimes seems to suggest—that there should be no pictures at all. This is a question of values. And so it is in the case of concepts. A concept, if it is to be a concept at all, must have a definite meaning ; and this is true even if we grant that it would be better not to have concepts at all, or that they have only a provisional value. The question of values does not concern us at this point. We are only concerned with what is implied in having a concept ; and it would seem that this is all that we need understand by a law of thought in the present case.

Having thus seen how a law of thought may be interpreted in relation to concepts, we may now proceed to consider its significance in relation to judgments.

3. *Implications of Judgment.*—A judgment, like a concept, is a meaning, but a meaning of a somewhat different kind. The judgments " $2 + 2 = 4$," " Green is not blue," " If a triangle has two sides equal, it has two angles equal," " He either fears his fate too much or his deserts are small," all convey definite meanings ; and the affirmation of these meanings implies the rejection of others. The statement " $2 + 2 = 4$ " would have no meaning at all if it might equally well be said that " $2 + 2 = 5$." Every judgment may thus be regarded as both affirmative and negative. It asserts something and negates everything that is inconsistent with that assertion. The principle of Contradiction is thus implied in all judgment. Here again we have to bear in mind that we are not at present concerned

with the truth or falsity of judgment, nor with the question of the value of the act of judgment. It may be the case, as some maintain, that all judgments are more or less false. The injunction "Judge not" may have a wider application than is commonly supposed. These considerations have no relevance to the present inquiry. We are only concerned with the questions What does a judgment mean? and What does that meaning imply? And even with these questions we are concerned only in a limited way. We are not inquiring into the significance of different types of judgment, but only into the kind of meaning that attaches to every judgment, and the immediate implications of that meaning. It is very important for our present purpose that we should limit ourselves strictly to these two points.

When we thus confine ourselves to what is strictly relevant, the significance of the principle of contradiction becomes clearly apparent. Every judgment may be regarded as the answer to a question, i.e. it is the statement of a meaning in a case in which other meanings are conceivable. The statement "This leaf is green" answers the question "What is the colour of this leaf?" Other answers might conceivably have been given. The judgment gives one answer selected out of other conceivable answers and excluding these other answers. The judgment may be a false one. The leaf may not really be green at all, or it may be only partially green, or may only appear green in certain lights. But the judgment asserts that it *is* green, and, in so doing, denies that it is *not* green. And what the principle of Contradiction calls attention to, is that every judgment contains the implication of such an assertion and such a denial. It thus plays a similar part in relation to judgments to that which is played by the principle of Identity and Difference in relation to concepts. It makes the meaning definite, and brings out its positive and its negative aspect.

The principle of Excluded Middle serves simply to lay further emphasis on the definiteness of the judgment. The assertion "This leaf is green" excludes the assertion "This leaf is not green." They cannot both be true and they cannot both be false. Of course they may both be inadequate. The leaf may be partly green and partly yellow, or it may

be a yellowish green throughout. Also the attribution of colour to the leaf at all may be open to question. Perhaps the statement ought to have been, "This leaf appears green in parts when looked at in a certain way in certain lights." There would thus be a sense in which it is green and also a sense in which it is not green. But the point is that it cannot be green in the same sense in which it is not green; and that, in the sense in which either assertion can properly be made, either the affirmative or the negative must be true. Otherwise both judgments would be meaningless. Meaninglessness, as Mill urged, lies between truth and falsehood. But the essence of judgment is meaning. To say that it is meaningless, is to say that it is not a judgment—though it may be an assertion, or a proposition that purports to express a judgment. With what qualifications its meaning is to be understood is a question of interpretation. "This leaf is green" may only mean "In normal lights the colour that is predominantly apprehended in connection with this leaf is green." All that has here to be maintained is that, whatever the meaning of the judgment may be, it excludes its opposite; and that one or other of them must be true. The significance of this, however, will become more apparent when it is considered in relation to belief.

Sigwart's principle of Double Negation[1] is, in some respects, preferable to that of Excluded Middle; or at least serves to make its exact force more apparent. The point of this is that, just as in denying an affirmative judgment we are asserting its contradictory, so in denying a negative we are asserting the affirmative that contradicts it. From this it is at once apparent that, if we are not entitled to deny either the affirmative or the negative, the principle of Excluded Middle cannot be applied. This is especially the case when the subject to which reference is made is not actually contained within the system in which it is proposed to place it, or when its meaning, as so placed, is ambiguous. Such judgments as "Squire Allworthy was a good man," "Homer was the author of the *Iliad*," "Zeus

[1] See his *Logic*, Part I, chapter iv, § 24. The objections of Dr. Bosanquet to Sigwart's contention on this subject (*Logic*, 2nd edition, vol. i, p. 302) do not appear to me to be convincing.

was the Father of Gods and Men," "Christ was the Son of God," can hardly be either affirmed or denied till we know in what sense and within what system they are to be interpreted. Once a definite meaning is put upon them, however (and it is only then that they are properly to be called judgments, as distinguished from propositions), we see that *in that sense* they must be capable of being either asserted or denied, and that either the assertion or the denial must be true. Similar remarks may be applied to the use of relative or indefinite terms, such as large, bald, a heap, and all those other expressions with which the ancient Megaric philosopher used to play. We cannot assert or deny anything with reference to such terms until they have been sufficiently defined to enable us to determine the exact sense in which they are being used.[1]

It will be observed that I have not included the principle of Identity as one of the fundamental implications of judgment. It has of course frequently been so regarded, being usually stated in the form A is A,[2] and being supposed to express the essential identity of subject and predicate. The unsatisfactoriness of this has often been pointed out; and recently Miss Constance Jones, in her interesting Essay on *A New Law of Thought*, has proposed that the principle of Identity should be dropped, and that the principle of Identity in Difference should be substituted for it. But it is difficult to see that any definite law is provided in this way. A formula of this kind does not seem to throw much light on the very varied relations between subject and predicate that are expressed in different types of judgment. I am prepared to allow, however, that what has been called the Law of Significant Assertion is a fundamental implication of judgment—i.e. the general principle that there is

[1] Further considerations bearing upon truth and falsity will be found below in Chapter VIII.

[2] It has been the fashion of late to substitute the formula A is B for A is A. This is no doubt justifiable if the object is to give a general expression for the form of judgment. But surely this is not what is aimed at by the principle of Identity. On the face of it, the statement that A is B is too like the assertion that black is white. The important thing to emphasize is that both A and B, whatever they may stand for, must at least have a definite and persistent meaning. See, on this point, the remarks by Dr. Bosanquet in the Preface to the 2nd edition of his *Logic*, p. xii. See also below, Book II, Chapter V, §§ 1–4.

a definite meaning in referring one thing to another (e.g. a quality to a substance, or an object to a class). But, as Professor Stout has pointed out, in his Preface to Miss Jones's Essay, this hardly seems to be a substitute for the principle of Identity. On the whole, it seems best to say that the principle of Identity applies to the concept, rather than to the judgment. What the judgment may be said to bring out, is that the Identity of the concept is not so hard and fast as to prevent it from being brought into some sort of unity with other concepts. This does not conflict with the principle of Identity, as explained in the previous section; and perhaps it is right to say that this further implication of its meaning comes out in the interpretation of judgment.

Another way in which the principle of Identity has been interpreted in relation to judgment, is summed up in the statement that "what is once true is always true."[1] But to apply this to any ordinary judgment requires a great amplification of its meaning. To show that "This leaf is green" is always true, we should have to interpret it as meaning something like this: What is indicated by a certain person at a certain time as "this leaf" presented the appearance which is recognized by normal vision in normal light as greenness. Even when it is thus expanded, some doubt might still be raised as to the sense in which it can be said to be eternally true. If we are to apply the principle of Identity to judgments, it seems clear that it is best to avoid any reference to time. Judgments as such (as distinguished from beliefs) are not things that occur in time. Perhaps the best way of applying the principle of Identity here is that which is suggested in Mr. Russell's *Principles of Mathematics*[2]—viz. that a judgment (or proposition) implies itself (*p* implies *p*). This has the advantage of connecting the judgment directly with inference. The first inference, it may be said, that we are entitled to draw from a judg-

[1] See Bradley's *Principles of Logic*, and compare what is stated by Dr. Keynes (*Formal Logic*, 4th edition, p. 451). The distinction drawn by Dr. Bosanquet (*Logic*, 2nd edition, p. 203) between time *of* predication and time *in* predication is useful here. Compare what is stated by Dr. Keynes (pp. 77 and 451). But it seems better to say that a judgment, *as such*, is essentially timeless.

[2] P. 15.

ment is the judgment itself. This is equivalent to the statement "once true, always true"; but it avoids the somewhat misleading time-reference. It also avoids the introduction at this point of the problem with reference to the proper interpretation of truth—a controversial question with which we are not yet in a position to deal. Any statement that would be definitely rejected as untrue by many of the leading writers on philosophical subjects could scarcely be described as a necessary Law of Thought. In the case of those principles that I have ventured to set forth as being entitled to stand on that proud eminence, I have endeavoured to make it clear that, as here interpreted, they are compatible with the most diverse theories of Truth and Reality. The same applies to the other principle that remains to be noticed, as being implied in Inference and Belief—the latter being distinguished from Judgment.

4. *Implications of Inference.*—Inference is entirely a matter of implication. It consists in making explicit what is implied in some meaning or combination of meanings. The fundamental presupposition of this is that one meaning is implied by other meanings, which serve as its ground. We are thus led to the principle that was referred to by Leibniz as that of Sufficient Reason or Ground. But before this can be properly dealt with, it seems necessary to refer to a still more fundamental principle, which may be best characterized as that of Objective Order. The possibility of inference depends on the fact that one meaning is intimately connected with others. The judgment "$2 + 2 = 4$" readily yields the judgment "$4 - 2 = 2$," because it is not an isolated judgment but one that falls within the general numerical system, within which the relations represented by $+$ and $-$ have their meaning. Similarly, "blue is darker than yellow" gives us at once "yellow is lighter than blue," because the meanings with which we are dealing fall within the general scheme of colours, in which darker and lighter signify places in a definite order. So also "A is before B" yields "B is after A," because the reference is to the general system of time order. "A is to the right of B" yields "B is to the left of A," because we are

dealing with a definite order of space relations. "A is the husband of B" yields "B is the wife of A," because we are dealing with a definite form of human relationship. "A is better than B" yields "B is worse than A," because the reference is to a definite order of values. "A is greater than B" yields "B is less than A," because we are concerned with a definite order of magnitudes. "A is the cause of B" yields "B is the effect of A," because we are referring to a definite order of causal relations. "Man is an animal" and "Animals are mortal" are two judgments which yield "Man is mortal," because the former judgment refers man to a definite class arrangement, to which a special characteristic has been ascribed. This last form of order was the only one that was definitely recognized by the Aristotelian logic, and it still forms the basis for the greater part of the treatment of inference in modern formal logic. But it seems clear that it is only one case of the kind of order that furnishes a basis for inference. The general basis of all inference is the recognition of some form of Objective Order. This is the case even with inferences of a simpler type, in which we appear to proceed by simple identity, as in the admirable illustration that is given by Dr. Bosanquet.[1] The two judgments "His first penitent was a murderer" and "I was his first penitent" yield at once the judgment "I was a murderer." But evidently this depends on the recognition of an order of penitents and the continuity of the individual life (at least if the characterization as "murderer" is held, as it probably would be, to qualify the person as now existing). Similarly, it is very obvious that the principle commonly referred to as the "uniformity of nature" is simply the recognition of definite order in natural phenomena. It is needless to elaborate this. It seems clear that there could be no inference of any kind without the recognition that the meanings expressed in judgments fall within systems of Objective Order.

Here, again, it is important to bear in mind that we are not at present concerned with the reality of such Orders, but only with the fact that they are implied in inference.

[1] *Essentials of Logic*, pp. 140–1.

The uniformity of nature may be subject to many exceptions. The causal order may be broken by Contingency. Time may not run on continuously.[1] The man who was the first penitent may really have become a different person. All that we are concerned to urge is that so far as any of these negations of order are true, inference becomes invalid or uncertain. It is only in this sense that we seem bound to maintain that the principle of inference is that of Objective Order. Obviously this connects closely with the principle of Sufficient Ground; but it seems better to consider this in connection with belief.

5. *Implications of Belief.*—The difference between a belief and a proposition or judgment[2] is that, while the latter is simply the expression of a complex meaning, the former is the acceptance of that meaning as true by some particular person. This, of course, raises the question, What is Truth? but with that we need not at present concern ourselves. There may be no such thing as truth; or it may be only a name for what is generally believed. All that is important for our present purpose is that the meaning expressed in a judgment may be accepted or rejected; and that for this acceptance or rejection there are certain grounds. It would seem that we can distinguish five kinds of ground on which belief may be based. (*a*) We may believe something simply because we choose to believe it; (*b*) we may believe something because we have been taught to believe it; (*c*) we may believe something because it appears to be self-evident; (*d*) we may believe something because it is a valid inference from something else that we believe; (*e*) we may believe something because it appears to be a necessary assumption for the establishment or explanation of other

[1] I am of course not admitting that any of these doctrines can be maintained, I am only urging that they may, for our present purpose, be regarded as irrelevant.

[2] Some prefer to make a distinction between proposition and judgment, and to treat judgment as equivalent to belief. It seems to me better (as previously explained) to regard a proposition as the expression of a meaning, a judgment as the meaning that is expressed, and a belief as the acceptance of that meaning by some person or persons. With the psychological analysis of belief we are not at present concerned; nor are we here considering how the truth of beliefs is to be interpreted.

beliefs. It is sometimes difficult to make a sharp distinction between these grounds of belief. Often beliefs are entertained on the cumulative force of more than one ground. But, in general, the distinctions seem sufficiently clear. The following illustrations may help to bring out their meaning. A man may believe that he will succeed in a particular enterprise that he has undertaken, because he very much wishes to succeed, and failure is "unthinkable." In the language of William James,[1] he "wills to believe." The ground here is purely subjective; though, of course, it will generally be the case that grounds of a more objective kind are mixed up with it. When a man chooses to believe something, he generally looks round for some circumstances that will justify it. But the subjective ground is real, and sometimes it has a certain value in practice. In war-time, for example, the "will to win" is recognized as an important element in national psychology. *Possunt quia posse videntur.* But sometimes it is only a source of blindness. Most people in this country chose to believe that a great continental war was almost impossible, in spite of all the warnings that they received, and all the evidence of preparation for it. This did not make the catastrophe any the less real, or enable them to meet it more effectively. Nor does optimism or pessimism with regard to its outcome—often based largely on individual temperament—have much direct influence on the actual result. But it seems clear, from such instances, that the ground of our beliefs is often a psychological ground,[2] and that occasionally the entertaining of beliefs on such a ground may be justified. On the other hand, beliefs may be based rather on social pressure than on individual inclination. The weight of custom and tradition is often greater than that of personal bias. It is inevitable that we should accept many things on the authority of experts or on the

[1] William James explained afterwards that by "the will to believe" he meant only the *right* to believe; but apparently he still meant the right to *choose* our beliefs without definite objective grounds. It seems clear (as has been already urged) that all conscious believing—as distinguished from that which is unconsciously implied in action—is choosing. The question is only, What constitutes a sufficient ground for such a choice? Perhaps if James had been content to claim the right to *hope*, or to select as a working hypothesis, he would have been less open to criticism. See below, Chapter X, § 11, and concluding Chapter, § 4.

[2] In other words, a *cause* rather than a *reason*.

general ground of the trustworthiness of human testimony. A man may believe that he is immortal, not merely because he wishes it, but because it is one of the doctrines of the Church to which he belongs. The Church may have other grounds for its doctrine; and the individual may have other grounds for belonging to the Church. But in both cases it may be true that the explanations are historical and psychological, rather than logical. Again, a man may believe that "the whole is greater than its part," because it seems to be self-evident. He may believe that if he steals he will be punished, because it is a valid inference from what he knows of the social order. He may believe that there is a uniform three-dimensional space, because without this conception he cannot deal with the problems of Euclidean geometry.

Now, the first two of these grounds do not appear to call for any special comment at this point. They could only be properly dealt with by a general consideration of the development of choice and the influence of the social factor upon it. The fourth also need not further concern us. To accept a judgment or a number of judgments is to accept what can be logically inferred from them. The third and the fifth grounds, however, raise the problems of Axioms and Postulates or Hypotheses, on which some remarks appear to be necessary.

6. *Axioms*.—This term has been applied to judgments of very different types. The simplest kinds of axioms are those that merely unfold the implications of certain conceptions. A few illustrations from geometry may serve to make this clear.

(*a*) "A whole is greater than its part." This simply brings out what is meant by "whole" and "part" in extensive magnitude. A foot is made up of inches, and the foot is greater than the inch. As soon as we go beyond magnitudes that are purely extensive, the axiom becomes doubtful, and may be false. A chain, for instance, is not stronger than its strongest link: on the contrary, it is only as strong as the weakest. The same applies to a chain of reasoning. Similarly a heated surface is not actually hotter than its

hottest point.[1] The vitality of a plant is not necessarily diminished by pruning; nor is the strength of an army necessarily increased by the addition of inefficient troops. The Greek proverb that "the half is greater than the whole" (πλέον ἥμισυ πάντος) calls attention to the fact that a magnitude which is extensively greater is often less in power and value. Even in knowledge the piling up of a mass of material does not necessarily mean more insight. The saying of Hobbes is sometimes worth remembering, "If I had read as much as others have, I should have known as little." But, as applied to magnitudes that are purely extensive, the axiom admits of no doubt, because it simply explains what is to be understood by such a magnitude.

(*b*) "Things that are equal to the same are equal to one another." This, again, simply makes more clear the meaning of equality. If A is equal to B, B is equal to A. If A is equal to B, and B is equal to C, A is equal to C, and C is equal to A. Similar axioms might be stated with regard to other relations. If A is before B, B is after A. If A is before B, and B is before C, A is before C. If A is to the right of B, B is to the left of A. If A is to the right of B, and B is to the right of C, A is to the right of C. If A is an ancestor of B, B is a descendant of A. If A is an ancestor of B, and B is an ancestor of C, A is an ancestor of C. Axioms of this kind simply bring out the meanings of certain relations and orders.

(*c*) "Two straight lines cannot enclose a space." This is a little more difficult. A simpler way of stating it is "Two straight lines can only meet at one point." This follows from the meaning of a straight line, which is perhaps best interpreted as a definite direction in space. Now, in a uniform Euclidean space, every direction is completely different from every other. Two straight lines from one point mean two entirely different directions from that point, and have consequently no other point in common. This simply brings out a characteristic that is involved in the meaning of Euclidean space, and does not necessarily apply to other conceptions of space.

[1] Of course, it could be made hotter by concentration; and, physically regarded, it has more potentiality of heat.

Such axioms as these present no real difficulty. They are analytical, in the sense that they simply serve to bring out the meaning of conceptions. Some of the axioms that are set forth by Descartes are similar, if they are strictly interpreted. "A being who can do what is more difficult can do what is easier" is analytic, if we add the words "for him"; for it then simply explains what is meant by easy and difficult. But, without this addition, it involves the questionable assumption that what is easy for one being is easy for another, and what is difficult for one is difficult for another. Emerson's squirrel says to the mountain—

> If I cannot carry forests on my back,
> Neither can you crack a nut.

It was probably easier for Napoleon to lead an army than to write *Faust*: for Goethe the reverse might very well have been true. Hence the axiom of Descartes in a very questionable one. Similarly, his axiom that every moment in time is a distinct existence from every other, involves a theory, and a very questionable theory, about the nature of time. Axioms of this kind, if they are to be admitted at all, are better characterized as Postulates.

7. *Postulates*.—What are called Postulates in mathematics are not always very clearly distinguishable from axioms.[1] The postulate that a straight line can be produced indefinitely seems to be involved in the conception of a straight line as a direction in a homogeneous space, and consequently involves simply the same presuppositions as those contained in the statement that two straight lines cannot enclose a space. The difference seems to lie merely in the relative simplicity or complexity of the assumptions that are involved. Sometimes the assumptions are very great, as in Descartes' assumption with regard to the nature of time, or in Kant's Postulates of Practical Reason. Such assumptions are made on the ground that, without them, it is impossible to give a satisfactory account of certain facts. Kant thought, for instance, that, without the Postulates of Freedom, Immortality, and

[1] Dr. Schiller's Essay on "Axioms as Postulates" in the volume entitled *Personal Idealism*, should be referred to in this connection; and so should the treatment of the subject in Dr. Bosanquet's *Logic*, Book II, chapter vii.

God, we could not give a satisfactory account of the moral life. What are sometimes called "Working Hypotheses" in physical science are of a similar character. Even the doctrine of the Conservation of Energy seems to be essentially such a working hypothesis. The difference between these and such axioms as have been referred to in the previous section, is that the latter are involved in the meaning of the conceptions with which we are dealing, while the former are only required for explanation—i.e. for bringing the particular facts with which we are dealing into relation to some more comprehensive order. But, as every judgment implies the recognition of some kind of objective order, it may be urged that the difference is one of degree. It depends on the extent to which it may be held that we are obviously entitled to take some kind of order as self-evident or intuitive. This is a point that calls for further explanation.

8. *Intuitive Belief.*—There are some things that it is hardly possible to doubt. We can hardly doubt, for instance, the validity of the mathematical operations by which the relations between numbers are established; and we can hardly doubt that numbers are applicable to objects. When we think of three points, three triangles, the three sides of a triangle, three petals, three sheep, three men, three nerves, three judgments, or the three persons of the Trinity, it seems clear that there is an intelligible sense in which triplicity can be ascribed to each of these objects; and that whatever can be shown to hold of the relations of three to other numbers will be applicable to these objects, so far as they are properly described as three. How far they are rightly so described is of course another matter. In some cases the units appear to be separable in a sense in which others are not; and in some cases they appear to be homogeneous in a sense in which others are not. But still there is a clear meaning in characterizing them as three; and, so long as we adhere definitely to that meaning, we can say that they are one more than two, and one less than four; and we can go on to apply various other numerical relations to them. There are, however, important qualifications. If there are three triangles or three men,

one may be removed, and two will be left. It is not in the same sense possible to remove one of the sides of a triangle or one of the petals of a flower or, we may suppose, one of the persons of the Trinity, without altering the whole character of the object. Nor can any of the objects referred to be divided into fractions, as a brick or a cheese might be, without altering or destroying its character. Apart from such qualifications, however, it seems clear that numbers have definite meanings which can be applied to objects of the most varied types. Similar remarks may be made about equality. A number of peas or eggs may be said to be all equal, and so may a number of men, provided that we confine our attention to certain purely quantitative aspects. And even things that are not quantitatively equal may be recognized as equivalent or "fungible" for certain purposes. A coat and a pair of boots, for instance, may be recognized as being exchangeable, though they are very different in size, number, and appearance, and in other respects adapted for very different purposes. So men, as "food for powder," may be treated as equivalent, though one might be hardly distinguishable from Caliban and another might be the author of *The Tempest*. So with words. In speaking of the motion of a bird's wing, we may call it "beating" or "flapping"; but when John Bright at the time of the Crimean War said, "The angel of death has been abroad in the land: we can almost hear the beating of his wings," the substitution of the word "flapping," as was noted at the time, would have led at once from the sublime to the ridiculous.

What appears from such instances is that we very readily make use of conceptions, such as number and equality, and apply them to particular objects, and can hardly doubt that they are applicable, when they are used in certain easily recognizable ways; but that their use becomes doubtful, and requires careful consideration, as soon as we pass beyond such simple applications. The same applies to our use of time relations, causal relations, and others. That in some sense one thing is before another, and that in some sense one thing is the cause of another, is often so obvious that it would hardly be possible for any one who was not mad to

doubt it. Our belief, in such cases, is sometimes said to be instinctive; and there seems to be a sense in which it is hardly possible to doubt that many of the animals have such beliefs—if they can properly be called beliefs. Birds are probably unable to count; but it is pretty certain that they recognize some difference between one egg and two eggs. Most animals also act habitually in ways that seem to imply some apprehension of equality, greatness and smallness, before and after, cause and effect, and similar conceptions, as applied to particular objects in particular circumstances.[1] But the ability to do this is very different from the ability to apprehend clearly the meaning of these conceptions, and to understand the qualifications with which they are applicable to different types of objects. The fact, however, that we have such instinctive or intuitive beliefs before we discover their full meaning and implications, and the qualifications with which it is right to apply them, is not merely of practical importance —in the sense that, otherwise, it would hardly be possible to carry on our lives at all; it has also a theoretical significance as serving to show that our use of conceptions is not an arbitrary game, but has its foundations in the nature of the world that we apprehend. This, however, is not a point on which we need dwell further at present. What I have rather sought to bring out, is that such intuitive beliefs, though in some sense hardly capable of being rejected, stand in need of criticism before we can be sure that we know the exact sense in which they can rightly be accepted.

9. *Foundations of Logic.*—What has now been urged about the meanings and implications of conceptions, judgments, inferences, and beliefs, should enable us to see more clearly what are the basis and significance of logical doctrine. If we define logic as the science of implications, we shall not, I think, be departing widely from what it has generally been taken to mean. But there are different ways in which implications may be considered; and these give rise to different types of logical doctrine.

In what is commonly called Formal Logic, only one kind

[1] The sense in which they do this is well discussed in Professor Lloyd Morgan's *Animal Life and Intelligence*, chapter ix.

of implication is dealt with—viz. that involved in the conception of classes. From the point of view of modern thought, this is little more than a game. It was not a game for its founder, Aristotle, because he regarded classification as the great aim of science. The formal treatment of thought can, however, be extended, as it is in modern mathematical logic, so as to deal with other relations than those of classes. The treatment of fallacies is, moreover, often combined with the study of formal logic ; and in dealing with these, the implications of language have to be considered in a more concrete way. The study of the methods of the special sciences, in the more empirical types of logic, involves the consideration of some of the chief forms of objective order, notably that of causation. Transcendental logic, on the other hand, seeks to deal with all the fundamental conceptions that are used in thinking, and to bring out all their implications. Thus it seems right to say that implication is the one subject with which every kind of logic is concerned. It is confusing to mix this up with psychological inquiries into the processes of thinking, or with discussions about the general nature of knowledge, or with the meaning of truth and reality, except in so far as questions may arise about the implications of different conceptions of knowledge or truth or reality. The one aim of all logic is to make our meaning clear, both with regard to what is meant and to what that meaning implies ; and it would be well if it could confine itself to this. No doubt in doing this it is incidentally helping us to discover truth —at least if truth is something that can be made clear. At any rate, the laws of thought, with which we have here been dealing, would seem to be simply the fundamental conditions of clearness. How far such clearness enables us to gain a genuine insight into truth and reality, is another question ; but at least we can hardly hope to gain such insight without it. It may be well, however, to add a few remarks here on the relations of Logic, as thus conceived, to Epistemology, on the one hand, and to Mathematics, on the other. We may refer to Mathematics first.

Mr. Russell, in his extremely interesting book on *The Principles of Mathematics*,[1] urges that that science is essen-

[1] See especially p. 9.

tially concerned with implications; and some other writers also have sought to bring Mathematics into very close relations with Logic, if not even to identify the two subjects. It is noteworthy, however, that in the working out of his treatment of Mathematics, Mr. Russell has frequently to appeal to general logical considerations, and sometimes has to confess that problems arise which it is difficult, if not impossible, to solve by purely mathematical methods. The truth appears to be that mathematical science (at least in its application to particular objects) aims essentially at providing us, as E. Mach has urged,[1] with an "economy of thought." This is of course a very valuable function. Once a general method has been discovered for seeing the implications of particular conceptions or judgments, the further working of them out may become a more or less mechanical process. In some cases, as we know, it can actually be relegated to machinery. But, before the machinery can be set to work, we have to consider what it is to accomplish for us; and frequently it is necessary also to interpret the results that are reached by such a process. We may economize our thought, as we may economize our labour; but the human factor cannot be altogether eliminated. Hence it would seem that there still remains a province for Logic even in dealing with those problems of implication that can be mathematically treated. Some of the problems, however—such as those implications that are discussed in the Logic of Hegel—do not appear to be susceptible of mathematical treatment at all.

Epistemology, on the other hand—i.e. the general doctrine of knowledge—would seem rather to be concerned with the presuppositions both of Logic and of Mathematics. The main problems of this subject have been already partly indicated, and will be further considered in some of the subsequent chapters.[2] But it has to be confessed that the distinctions

[1] See his book on *The Analysis of Sensations*. He applies this description (following Avenarius) to science in general; but it appears to apply more particularly to those that are formal and abstract. On the general conception of Economy of Thought, reference may be made to the article by Dr. W. Frankl in Professor Meinong's *Untersuchungen zur Gegenstandstheorie*, and to *The Problems of Philosophy*, by Professor Höffding. On the general relations between Logic and Mathematics, the article by Mr. W. T. Marvin in the American volume on *The New Realism* may be consulted, especially p. 52.

[2] Especially IX and X and some of those immediately following.

between different subjects of study are to some extent artificial. The problems dealt with in one science can seldom be cut off quite sharply from those of others.[1]

[1] The relations of Logic to other subjects have been discussed by various writers. The first volume of Husserl's *Logische Untersuchungen* contains one of the most elaborate accounts ; but he does not appear to arrive at any very clear decision with regard to its essential province. On the relations between Logic and Mathematics, the remarks by Dr. Bosanquet (*Logic*, 2nd edition, vol. ii, pp. 40–9) seem to me highly instructive. See also Royce's statements on the subject in Windelband and Ruge's *Encyclopædia of the Philosophical Sciences*, p. 129. Professor Whitehead, who has given much attention to the relations between logic and mathematics, has recently made the following statement on the subject : "Mathematics is nothing else than the more complicated parts of the art of reasoning, especially where it concerns number, quantity, and space" (*The Organization of Thought*, p. 45). It is noteworthy that he describes this subject as an *art*. I think both logic and mathematics are properly *sciences* ; but it seems right to characterize this special application of mathematics as an art ; and it seems to me that, in this way, the distinction between the scientific treatment of implications in general and the working out of some of them in detail is very well brought out. See also *The Problem of Knowledge*, by Professor D. C. Macintosh, pp. 462–4.

CHAPTER VII

THE CONCEPTION OF OBJECTIVE ORDER

1. *The Meaning of Order.*—We have seen the importance of the conception of order as an implication of logical thought; but we must now try to determine more definitely its meaning and its principal modes.

As Professor Bergson has well urged,[1] it is hardly possible even to conceive of a complete absence of order. When we speak of disorder, we generally refer to the absence of some particular kind of order. Most commonly the kind of order that is referred to is that of subordination to a purpose. When Anaxagoras said that all things were in disorder, till νοῦς came and arranged them, it is doubtful whether he had any quite clear meaning; but Socrates and Plato interpreted him as meaning that the conception of the best is to be taken as the fundamental principle of order. And this is what we appear generally to have in mind when we speak of the ordering of things. A ship is in good order when everything is so arranged as to subserve the purposes of the voyage. So it is with a house, a garden, etc. But obviously things may be arranged in some sort of order without any reference to a special purpose. The arrangement of plants and animals in classes, for example, does no doubt subserve certain purposes; but, apart from any definite purpose, it suggests itself as a natural arrangement. In logic, as we have already noted, this has generally been taken as the chief principle of order. But it seems clear that any principle that has some possibility of continuous application may be taken as a principle of order. Alphabetical order or chronological order may be valuable for particular purposes; and there are many other modes of continuous relationship. To dis-

[1] *Creative Evolution*, especially pp. 244–9.

cover them all, and to place these orders themselves in a continuous order, is a very difficult problem. It is closely related to—if not, in the end, identical with—the problem of the discovery of the categories. This we are not yet in a position to discuss. But it may be well, at this point, to call attention to some of the most conspicuous and fundamental of these modes of order.[1]

2. *Modes of Order.*—It will be best to take them, as far as possible, in what appears to be the order of relative simplicity.

(1) *Numerical Order.*—It is usual to distinguish between cardinal and ordinal numbers, and the word tends to be used also in a more extended meaning, which carries us beyond either of these. The simplest way in which numbers can be used and understood seems to be that in which they are employed in counting the members of a more or less homogeneous class or group. Such a group may consist of any number from zero (e.g. the class of "human beings not liable to error") up to an indefinite multitude (e.g. the class of "human beings who are liable to error"). The numbers that are used for this purpose form a continuous series, 0, 1, 2, 3, etc., in which each member is greater by one than that which precedes it. This is the series of cardinal numbers. The number contained in a definite group thus considered is determinate (though it may only be determined as "indefinite"), and remains the same, in whatever order it may be taken. But sometimes the order is of some importance. In the results of an examination, for instance, there may not only be a certain number in the first class, but the candidates may also be arranged, within that class, in order of merit. Here, the order in which they are taken is not indifferent; but the numbers used to indicate the positions of the candidates are the same as before, with the omission of 0. We thus get the series of ordinal numbers, or, in other words, numbers used for the arrange-

[1] The most elaborate treatment of the subject of Order with which I am acquainted is that contained in the *Ordnungslehre* of Professor H. Driesch. He treats it as an independent subject, distinguishable from Logic, Theory of Knowledge, and Metaphysics; but perhaps not distinguishable from the *Gegenstandstheorie* of Professor Meinong.

ment of objects in an order that is not simply numerical—i.e. not simply one of counting. But the fact that the groups with which we have to deal are frequently not composed of homogeneous members, leads to further extensions of the conception of number. A group may consist of members that can be divided into parts; and some of them may be so divided, while others are not. A collection of peas may consist partly of whole peas and partly of peas that have been split in two. It thus becomes desirable to take account of fractions; and a fraction also may be called a kind of number. Such an extension soon leads to others, which carry us far away from the original meaning of number, and introduce such forms as $\sqrt{-1}$, signs of differentiation and integration, orders of infinity, and so forth. But all these complexities grow out of the simple fact that things can be counted; and we may take the arrangement of homogeneous objects within a group as the most elementary mode of order. If everything were absolutely different from everything else, it is clear that the numbering of them would have little, if any, significance. Nor, indeed, could it have much significance, if everything were absolutely the same as everything else. It is the presence of identity in difference that gives significance to the numbering of objects in groups. This, then, we may take as our first mode of order; and it is one that helps us in dealing with every other mode.

(2) *Temporal Order.*—The relation of before and after is perhaps the next in order of simplicity, though it raises problems that are extremely difficult. Even in counting the members of a group, we necessarily take them one before another, though the particular order in which they are taken is, in this case, immaterial. In vital processes, however, the order is not immaterial. Childhood comes before youth and manhood; and the order of unfolding has great significance for human life. For the present we are not concerned with that significance. We have only to note that the relation of before and after runs through the whole of our experience. We cannot even imagine an experience which should not contain this order; and yet it is so simple that it hardly seems possible to say anything more about it than

that it is there. The difficulties that arise in connection with it will have to be considered later.

(3) *Spatial Order*.—The relation of side-by-side-ness is hardly less universally present in our apprehension of objects than that of before and after. It is most familiar to us in the form of that physical space to which we refer material objects; but, in imagining things also, we bestow upon them the characteristic of extension. Whether in seeing or in touching or in imagining, we tend to think of the extension of objects as falling within a uniform three-dimensional system, spread out indefinitely in all directions. Within such a system the spatial relation can be readily represented as uniform and continuous throughout. There are, however, some difficulties in the way of this conception, though hardly as great as those that present themselves in connection with time.

(4) *Order of Degrees*.—Most of the characteristics that we find in objects appear to be capable of being present in greater or less intensity. A colour may be more or less bright. A sound may be more or less loud. A pain may be more or less intense. Even a thought may be more or less clear. In this case, as in the case of numerical quantity, there is an extreme limit on one side—viz. zero. From this it would seem that there is, theoretically, the possibility of continuous and indefinite increase, though in our actual experience the degrees are neither continuous nor indefinitely extended.

(5) *Qualitative Order*.—There is also the possibility of more and less in approximation to certain types. A colour may be more or less red, or more or less blue, and there is an almost continuous transition from one colour to another. The same is less conspicuously apparent in the case of sounds, smells, tastes, and perhaps in some other sensible qualities. The transition in such cases is not from zero to a certain magnitude, but from one positive quality to another.

(6) *Order of Kinds*.—From a sound to a colour, on the other hand, or from a taste to a smell, there is no continuous transition. Rather there is a great gulf fixed between these different types of experience. They can only be connected by similarities in the ways in which they are cognized and in the sources to which we are led to refer them. This does,

however, to some extent enable us to group them together in a kind of order, but an order that has to be recognized as very incomplete and imperfect.

(7) *Causal Order.*—The question of causation is still somewhat controversial, and must be further considered at a later point.[1] Kant connected it with the hypothetical form of judgment—If A, then B—and this at least furnishes us with a good starting-point. One thing follows upon another, not simply in the sense that one comes after the other, but in the sense that there is a certain regularity in the relation between the one and the other. This is especially the case with changes. Any change in the world is accompanied or followed by other changes; and there is a certain regularity in the way in which these changes take place. It used to be thought that one thing is *efficient* in bringing about changes in other things; but the conception of efficiency was criticized by Hume in a manner so clear and cogent that it is now almost universally abandoned. Hume urged that the supposed necessity of the sequence of one thing upon another is only a subjective necessity based on custom. Kant, in a somewhat cumbrous and tortuous fashion, contended that the necessity is not purely subjective; since, without orderly connection in the changes that take place, the world would not be a knowable system. This seems to be true. If so, causal order has to be recognized as one of the fundamental orders in the world that we know, and so as one of the postulates of scientific thought. But its exact interpretation cannot be dealt with at this point.

(8) *Order of Growth.*—The general conception of causation relates to the connection of changes in one thing with changes in other things throughout the world. It is probably true that even the slightest change in any object is connected with slight changes that extend throughout the whole universe. The doctrine of conservation of energy is one of the chief ways in which changes at any point are connected with other changes. But there are some objects that can almost be regarded as little worlds within themselves. These are called organic unities. Although these objects are connected, like others, with the whole of the surrounding world, yet the

[1] Book II, Chapter IV.

changes that take place in them are mainly connected with other changes that are also within them. Living beings have a certain order of growth and decay within themselves. This applies to plants and animals and also, in a somewhat different way, to unities of animal life, such as a hive of bees, and more definitely to unities of human life, such as families, tribes, nations, and even the general life of humanity as a whole. The characteristics of this kind of unity were well brought out by Kant.

(9) *Order of Consciousness*.—The kind of order that is described as organic unity becomes most definite when it is accompanied by consciousness. There is at once a more complex and a more definite order in the life of an animal than in the life of a plant. As Spencer put it, it is at once more differentiated and more integrated. The conscious centre of cognition and feeling brings it near to the teleological order which, as noted at the outset, is our most prominent type of what is properly to be understood by order. But it is only in the thinking consciousness that this becomes quite definite.

(10) *Order of Value*.—In the thinking consciousness, as we have already noted, the order of growth becomes largely determined by choice ; and choice is guided by valuation. Even in animal life there appears to be something that may be described as implicit valuation ; and in human life also the valuation is to some extent implicit. We are, in general, only partially aware of the ends that we pursue. But we are more and more seeking to attain what is good, true, and beautiful ; and the order of human life becomes more and more guided by the consciousness of these ends.

(11) *Moral Order*.—It is chiefly in the moral life that this kind of order becomes fully explicit. Here we are guided by the conception of what is absolutely good ; and all the facts of life fall into their place as means to this supreme end, or as partial realizations of it.

(12) *Logical Order*.—Finally, we return to the point with which we were concerned in the last chapter. In logical thinking we make use of the various orders to which reference has now been made ; and we seek to bring out their implications in an orderly way. The fundamental orders

furnish us with the major premises in our reasoning; and these lead us on, step by step, in a continuous process, to more or less well-established conclusions.

'3. *'Relations within Orders.*—When we consider any system in which there is a definite order, it becomes clear that there is a great variety of relations contained within it. In mathematics, for instance, a great variety of relations are discoverable among numbers, depending simply upon the structure of the numerical order. Similarly, the structure of the spatial order forms the basis for a vast variety of spatial relations. Orders in which the structure is not so definite, such as that of colours, do not yield an equally great variety of relations, but still a considerable number. Relations of this sort may be called intrinsic. They are essentially involved in the nature of the orders with which we are concerned. Hence they serve as the basis for definitions. The number 7, for instance, may be defined as $6 + 1$. A straight line may perhaps be defined as a uniform direction in space. Green may be defined as the colour that lies between yellow and blue. Good may perhaps be defined as the ultimate object of rational choice. Such definitions are of course not analytical or nominal. They do not simply unfold the primary meaning of the terms that we are defining; but they indicate the place of the objects that are denoted by these terms within the order to which they essentially belong. In this sense, terms that are commonly said to be indefinable—such as those denoting sensible qualities—appear to be capable of definition.

'4. *'Relations between Orders.*—There are other relations of a more external kind. One order may be related to another order, or objects within one order to objects within another. Sounds, for instance, are not without relations to colours. A good deal of ridicule has been cast on the blind man who thought that scarlet was like the sound of a trumpet; but it is now generally recognized that he was not so far out as was commonly supposed. Causation, again, enables us to connect things that are in themselves widely different. Colours appear at particular parts of space and in connec-

tion with the sense-organs of particular individuals. Such relations are rightly said to be external. If, however, the universe can be regarded as a completely ordered system, it would seem that even these external relations might be found to be intrinsic. In any case, they direct attention to more comprehensive order, within which the narrower orders are brought together; though the structure of these more comprehensive orders is often less apparent than that of the simpler ones. Hence the emphasis that is laid on external relations by Mr. Russell (and perhaps even, in a different way, by Green [1]) is apt to be misleading. The conception of objective orders seems to be logically prior to that of the relations that subsist either within or between orders.

5. *Implications of Orders.*—The fact of implication, to which attention has already been drawn, seems to depend entirely on order. Nothing implies anything else, except in so far as the two things are included within some definite order. In the statement, for instance, "If I do not come by the three o'clock train, I will come by the five o'clock train," it may be said that my not coming by the three o'clock train implies my coming by the five o'clock one; but evidently the one does not in itself imply the other. The implication depends on the continuity of my purposes; and this again is a complex order, based ultimately on certain valuations. This is a point that it is important to bear in mind, in connection with the interpretation of truth; and it will have to be noticed, in that connection, in the following chapter.

6. *The Conception of a Cosmos.*—The consideration of the various modes of order to which reference has now been made, leads us naturally to the conception of the Universe as a completely ordered system or Cosmos. It is with this conception that constructive philosophy has been concerned throughout the whole of its history. In early Greek philosophy, the order of the Cosmos was at first conceived as a mechanical order. Anaxagoras suggested a new way of thinking of it by representing νοῦς as the principle of order; and this suggestion was afterwards adopted and developed by Plato. The Platonic conception has, in the

[1] See below, Chapter IX, § 7.

main, served as the foundation for almost all the subsequent attempts that have been made. The essence of it is that the Moral Order, or the Order of Value, is to be taken as the interpretation of all the others. It certainly seems that the subordination of everything to the realization of what is intrinsically good or beautiful is the only way in which we can definitely conceive of a completely ordered system. It is the only kind of conception that is, in Spinoza's phrase, *causa sui*, its own ground. When we see that something is good or beautiful, we may still ask *how* it is, but we no longer want to know *why* it is. Plato's suggestion is that the ultimate explanation of things is a *why*, rather than a *how*. But it is very difficult, as Plato well knew, to explain the universe in this way; and we cannot, at this stage, discuss its possibility. But it seems at least to be the most hopeful direction in which a solution may be sought.

7. *The Conception of Chaos.*—The conception of a perfect Cosmos has, as its opposite, the conception of Chaos. But, as we have already noted, it hardly seems possible to think of a complete absence of order—just as it is hardly possible to think of pure non-being (if, indeed, these two things are not essentially the same). In fact, it might even be urged that a perfect Chaos would, from its very perfection, be a kind of order. Its studious avoidance of order would even suggest purpose. Hence it might be held that the most perfect Chaos would be one that had an illusory appearance of order, suggesting purpose without its reality. It would seem, in short, that what is essential to Chaos is not absolute disorder, but absence of design. A universe that cannot be made intelligible is essentially chaotic, even if a considerable amount of order is to be found in it. Thus it may be contended that we are really presented with the alternatives of regarding the Universe as a Cosmos or as a Chaos. How these alternatives are to be dealt with, we are not yet in a position to consider; but some further remarks about them may not be out of place.

8. *The Order of Experience or Existence.*—It seems clear that the world, as it appears to us in our ordinary experi-

ence, contains a considerable amount of order. It consists of numerable parts, occurring in a certain regular sequence, falling to a large extent into a regular three-dimensional spatial order, having definite degrees, qualities, and kinds, giving evidence of causal correspondence, containing living beings which suggest and are sometimes conscious of the guidance of definite purposes. At the same time, we seem to detect some absence of order. The kinds of things, in particular, are marked off from each other in an abrupt and somewhat irregular way; and they are distributed in a way that has very little appearance of design. The appearance of design in living beings appears also to be to some extent illusory—especially if the origin of living types is to be accounted for by a process of struggle. In any case, it is obviously very imperfect. And, though human beings are guided by purposes, yet the ultimate end at which they aim is very difficult to make clear. Yet the amount of order that is apparent in the universe is so great, and becomes so increasingly manifest with the growth of knowledge, that it is not easy to regard it as chaotic. Hence we are led to ask whether it may be true, not only that a perfect Chaos would have some appearance of order, but also that a perfect Cosmos might present, from certain points of view, some appearance of disorder. This, however, is only the suggestion of a problem which will have to be considered at a later stage.[1]

[1] Especially in Book III, Chapters II and IV. It may be well to state here that the general view set forth in this chapter, as well as in some succeeding chapters, is reproduced from "A Sketch of a Philosophy of Order" in *Mind*, April 1913. A criticism of this by Professor L. P. Saunders appeared in January 1914. Most of his objections, however, turned on the unquestionable fact that my meaning was, at various points, not sufficiently explained. I have borne them in mind, and I hope they may be largely removed by the fuller statements in this and several of the following chapters. The conception of Order was much emphasized by Royce in *The World and the Individual*, vol. i, pp. 526–38, and vol. ii, *passim*; and in Windelband and Ruge's *Encyclopædia of the Philosophical Sciences*, pp. 67–135. He stated in the latter book (p. 135) that "the theory of Order will be a fundamental science in the philosophy of the future." Driesch's *Ordnungslehre* may perhaps be taken as a first step towards the fulfilment of this prediction. The treatment of Order in Russell's *Principles of Mathematics*, chapter xxiv, is also extremely interesting; but I think he hardly gives the conception a sufficiently fundamental place. Professor Ostwald is another recent writer who has laid much emphasis on the conception of Order. See his *Moderne Naturphilosophie*, especially p. 173.

CHAPTER VIII

TRUTH AND REALITY

1. *The Meaning of Truth and Falsehood.*—In discussing, in a previous chapter, the general implications of thought, we allowed that truth might be supposed to mean merely what is generally believed, or what serves as a working hypothesis. In view of what has since been urged with reference to objective order, we may now insist more definitely on the objectivity of truth. When we state that $2 + 2 = 4$, or that virtue implies knowledge, or that the earth revolves round the sun, or that we are at war with Germany, it seems clear that we do not merely mean that these things are generally believed, or that they are convenient hypotheses, but that they are true in a certain objective sense. No doubt there are some other things that are commonly affirmed, such as the theory of conservation of energy, the doctrine of the homogeneity of space, and some others, which may be more purely hypothetical; but, as soon as their hypothetical character is recognized, we do not say that they are true, but only that they are probable, or that they are good working hypotheses. We have now to inquire, more definitely, what is to be understood by saying that anything is true, when the term is taken in its more strictly objective sense. To do this, we must return to the conception of objective orders.

When we say that it is true that $2 + 2 = 4$, and false that $2 + 2 = 5$, we are referring to relations that hold within the scheme of numbers. We are not referring to anything else. We do not mean, for instance, that the four sides of a square might be separated into two sets of two, independent of one another; or that two sets of two men working separately would be as efficient as four working in co-

operation. We only mean that a set of four contains 2 more units than a set of 2. Now, this is clearly not a matter of opinion. It is involved in the structure of the numerical scheme; and so, within that scheme, it is objectively true. So again, if we state that blue is nearer to green than to yellow, this is true with reference to the scale of colours, and is not a matter of opinion. Nor is it merely a matter of opinion that beauty has more value than ugliness, virtue than vice. Such truths follow from the structure of the orders with which they are concerned. About historical truths, and in general truths of fact, there is more possibility of doubt. But when we state that William of Normandy came to England in 1066, we certainly intend to state what is objectively true. Here we are referring mainly to the orders of time and space; and we mean that the event referred to had a certain definite position within these orders. If we are right in this, the statement is true in the same sense in which it is true that $2 + 2 = 4$. It would seem, then, that, when we say that anything is true, we mean that it is in conformity with the structure of a certain objective order. Understood in this sense, every judgment is either true or false. Its meaning either is or is not in conformity with the structure of the order to which it refers. We are here, of course, concerned simply with judgment in the sense in which the term was previously explained. What we have next to consider is the sense in which truth and falsehood—or rather correctness and error—may be ascribed to beliefs.

2. *The Meaning of Correctness and Error.*—A belief, as we have already noted, appears to mean the acceptance of some judgment as true; and we have now seen in what sense this is to be interpreted. When the judgment thus accepted as true is true, the belief is correct; when it is not true, the belief is erroneous. But correctness and error, unlike truth and falsehood, admit of degrees. A judgment that is false may be more or less remote from the truth. When it approximates closely to the truth, the belief that it is true may not be seriously erroneous. If one man is six feet high, and another is five feet eleven and a half inches, it is false to say that they are of the same height; but to believe that

they are equal may not be seriously wrong for many purposes. Again, even if a judgment is true, our belief in its truth may be to some extent erroneous; since it may not be properly understood by us. If I believe that $2 + 2 = 4$, my belief is so far correct; but I may fall into a serious error if I understand it to mean that two sets of two things taken separately are in every way equivalent to four things taken together. Hence it is probably true to say that men's beliefs are seldom either entirely correct or entirely erroneous. But it is at least misleading to express this by saying that there are degrees of truth.[1]

3. *Truth as Correspondence.*—It will be well to consider at this point in what sense it may rightly be maintained that truth means correspondence. In order to deal with this, it is important to bear in mind the distinction that has just been drawn between truth and correctness. It will be best to begin with the latter.

Correctness, as we have seen, relates to beliefs. Now, it seems clear that there is a sense in which it is right to say that a correct belief is one that corresponds to some objective system. In order to give definiteness to this, we may select instances in which the system is somewhat arbitrary, and even trivial. Confusion often results from proceeding at once to large and complex cases. Let us begin with a game. In a game of cards there is a recognized

[1] It may be well to note that the distinction here drawn between correctness and truth does not quite correspond to that which Professor Driesch draws in his *Ordnungslehre* (especially p. 22) between "richtig" and "wahr." If I understand him rightly, he would say that any judgment referring to relations that hold within some particular order should only be described as correct or erroneous; and that only judgments that assign a place to some object in the universe as a whole should be called true or false. According to this usage, the judgment that $2 + 2 = 4$ would be correct, rather than true. I can see that something is to be said for this usage. But it is perhaps best to say that the judgment that $2 + 2 = 4$ is true when it is recognized that we are dealing simply with relations that hold within the numerical system as such. It would of course not be true (nor would it be correct) if it were understood to mean that the combination of two distinguishable objects with other two will always yield four distinguishable objects. Similarly it is true that A comes before B, if we are referring to the recognized order of letters in the English alphabet; but it would obviously be neither true nor correct to say that this is the order in the word "bad." The question as to the proper meaning of "true" is of course largely a verbal one. The distinction, as I have drawn it, seems to me to be of some importance, however it may be best to express it.

order, which is objectively valid for those who are engaged in playing it. In certain games, for instance, it is a rule that the Queen can take the Knave, but not *vice versa*. In such a case, if any one were to believe that the Knave could take the Queen, his belief would be incorrect. The order recognized by him would not correspond to the objective order. Here the standard is conventional. Nevertheless, it is an objective system; and beliefs are correct when the order that they recognize corresponds to, or coincides with, the objective order to which they refer. The same is the case in matters of etiquette—e.g. that a Duke takes precedence of an Earl; or in morals—e.g. that it is wrong to hate our enemies. Similarly, in Mathematics, the belief that $2 + 2 = 4$ is correct, and the belief that $2 + 2 = 5$ is erroneous; because the one corresponds, and the other does not, to the relations that are implied in the objective system of numbers. Or, again, it seems to be correct to believe that Shakespeare wrote the play of *Othello*, and incorrect to believe that Bacon wrote it. In this case, the correctness may be interpreted either as correspondence with the generally received opinion, or as correspondence with what actually occurred as a historical fact. In the same sense or senses, it may be held that human beings have been evolved from lower forms of life, that the earth revolves round the sun, that in all the movements in the physical universe the amount of "energy" (estimated in a special way) is constant. In all these cases, there is an objective system that is, more or less definitely, recognized; and the beliefs of particular individuals may either conform to or diverge from the objective system with which they are concerned. In this sense, therefore, we may hold that correctness means correspondence.

The case is somewhat different, however, if we are considering, not the correctness of a belief, but the truth of a judgment. A judgment is itself objective. It is a definite meaning that particular individuals may believe or disbelieve. The judgment that $2 + 2 = 4$ means that this relation holds within the system of numbers. It is true if this is the case. It either is or is not a relation that holds good within that particular system. Here we cannot properly speak of corre-

spondence, but rather of coherence. We are dealing with an objective system, in which certain modes of relation are implied ; and what we have to ask is, what are the modes that are implied in such a system. A proposition is true when the meaning that it is intended to express (which is what we understand by the judgment) is contained or implied in the system to which it refers. It is false when it means something that is excluded from that system. The judgment that $2 + 2 = 4$ does not *correspond* to a relation that is contained in the numerical system : rather it *is* such a relation. The *belief*, on the other hand, that $2 + 2 = 4$ is a belief that corresponds to the fact. Thus it seems best to say that correctness means correspondence, but truth does not.

In truth-speaking, of course, the relations are somewhat more complicated. There is, first of all, some objective fact : next there are some judgments with reference to that fact : next there is the expression of these judgments in certain assertions or propositions, intended to convey judgments to some other mind. The judgments may or may not be believed by the speaker, and may or may not be so expressed as to convey their meaning to the mind of the hearer, who, again, may or may not believe them. Take the case of a merchant drawing up a statement of his income. As a matter of fact, his income (estimated in such a way as a skilled actuary would approve) is of some definite amount—say, £1,000. The judgment that it is £900 would, in this case, be false ; but he may believe this to be a true judgment. This would be an instance of an erroneous belief ; and, if he stated to a tax-collector that his income was £900, the judgment thus expressed would be false in relation to the objective fact, but would be a true statement of his erroneous belief, which also is a fact. It would be commonly said, in such a case, that he spoke the truth, *to the best of his belief*. If, on the other hand, he stated that his income was £800, the assertion would be false, both with reference to his belief and with reference to the objective fact. In this case, but not in the other, he would commonly be said to have uttered a falsehood, and not simply fallen into an error. If, again, the tax-collector accepted this statement as true,

he would be in error ; and his error would be greater than that of the merchant who made the statement.

This leads us to notice the sense in which we may speak of degrees of Truth and Error.

4. *Degrees of Truth.*—Here the conception of degrees would seem to be applicable rather to correctness than to truth, rather to beliefs than to judgments. It is not, in general, as erroneous in a game of cards to believe that the Knave may take the Queen as that the Knave may take the Ace. It is not as erroneous to believe that an Earl takes precedence of a Duke as to believe that a Baronet takes such precedence. It is not as erroneous to believe that it is right to hate our enemies as to believe that it is right to hate our friends. It is not as erroneous to believe that *Othello* was written by Bacon as to believe that it was written by Comte. It is not as erroneous to believe that $2 + 2 = 5$ as to believe that $2 + 2 = 50$. It is not as erroneous to believe that the sun revolves round the earth as to believe that neither of them moves at all. It is not as erroneous to believe that human beings are a special creation as to believe that they have always existed in the form in which we now know them. It is not as erroneous to believe that the total amount of energy is sometimes lost in motion as to believe that it always is so lost, or that there is no general rule of its conservation. In this sense, it would seem that there are degrees of correctness and error.

On the other hand, when we know exactly what is meant by an assertion, it either does or does not express some relation that is contained or implied [1] in the system to which it refers. *Othello* either was or was not written, in whole or in part, by Shakespeare ; and, similarly, in the other cases. There is no medium here, when the meaning is definitely and fully stated, between truth and falsehood. Hence it seems right to say that there are degrees of correctness and error in beliefs, but not of truth and falsehood in judgments.

[1] Or, as we might say, "asserted." I believe this is what Mr. Russell means by an assertion that is not "psychological." See *Principles of Mathematics*, pp. 35, 48–9, and 503.

5. *Truth as Coherence.*—We may now notice a little more definitely the sense in which truth means coherence. In order to do so, we must set aside altogether the subjective aspect of belief, with which we have been concerned in the previous sections ; and concentrate our attention on the meaning of a judgment or proposition as such. Mr. Russell, in his *Philosophical Essays*, has very ably defended the theory of correspondence ; but he does so by interpreting judgment as meaning belief.[1] Even in that sense, I am doubtful whether he quite succeeds in explaining what it is that corresponds, and what it is that it corresponds to. But, at any rate, in his *Principles of Mathematics*, where he is more definitely concerned with the objective significance of the judgment, he seems to me to fall in rather (perhaps unconsciously) with the coherence theory. Of course that theory has sometimes been defended in senses that appear to be quite untenable ; and against these he has rightly protested. In order to bring out the sense in which it holds, I may refer to a passage [2] in which Mr. Russell notes a somewhat paradoxical aspect of the truth and falsity of judgments ; viz. that a true judgment is implied by all other judgments, and that a false judgment implies all other judgments. The paradox is removed when the exact meaning of the statements is considered, which appears to depend on a somewhat peculiar use [3] of the word "implies"—a use, however, that serves to bring out the meaning of coherence. When it is said that a true judgment is implied by all other judgments, what is meant is that all other judgments have to cohere with a true judgment. It occupies the field, and they have to put up with it, very much as Margaret Fuller had to "accept the Universe." They imply it, in the sense that they cannot afford any valid ground for its rejection. No other statement can expel it. As Burns put it—

> Facts are chiels that winna ding,
> And downa be disputed.

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[1] All the difficulties in Mr. Russell's theory of judgment seem to arise from this identification—which, however, is by no means peculiar to him. It is, I think, really important to observe the distinctions between propositions, judgments, and beliefs.

[2] *Principles of Mathematics*, pp. 15 sqq.

[3] See, for an explanation of this, the article on "Implication and the Algebra of Logic," by Mr. C. I. Lewis, in *Mind*, October 1912.

Similarly, when it is said that a false judgment implies all other judgments, what is meant is that such a judgment upsets the system of coherent truth, and gives no ground for the rejection of any other judgments, however contradictory. This may be illustrated by the passionate exclamation of Leontes in *The Winter's Tale* :—

> Is this nothing?
> Why then the world and all that's in't is nothing;
> The covering sky is nothing; Bohemia nothing;
> My wife is nothing; nor nothing have these nothings,
> If this be nothing.

Obviously what he means by these emphatic affirmations is simply that the judgment suggested by the question is false. This instance may help us to see in what sense it can be held that truth means coherence. Judgments hold or do not hold within particular systems. A true judgment fits into the system, as a key into its lock: a false judgment, if inserted, breaks it to pieces. A thoroughly false judgment is a judgment that holds only in the system of Chaos, where every contradiction may be allowed. A true judgment, on the other hand, takes its place within an orderly whole; and no other judgment can be allowed to contradict it. The system within which it holds may of course be a somewhat limited one. The system within which Othello is jealous is the same as that within which Iago is envious. If it is said that Othello is not jealous, we have no ground for denying that *in that system* Iago is not envious. It is only within a certain coherent whole that truth and falsehood have meaning. The truth is what coheres with it: the false is what it excludes, or what, if admitted into it, destroys it.[1]

These considerations lead us directly to the meaning of reality.

6. *The Meaning of Reality*.—Reality is a somewhat ambiguous term. There are a number of senses in which it may be understood; but it will perhaps be sufficient to

[1] On the general subject of Truth, reference should be made to the Essay on Error by Professor Stout in the volume entitled *Personal Idealism*. Mr. Joachim's book on *The Nature of Truth* contains interesting discussions, but is very inconclusive. See also the paper by Miss L. S. Stebbing on relations and coherence (*Proceedings of the Aristotelian Society*, vol. xvii).

distinguish four—(1) the True, (2) the Existent, (3) the Perfect, (4) the Absolute or Eternal.

(1) *Reality as Truth.*—Whatever is true may be said to be real. It is really the case that $2 + 2 = 4$, that blue is different from red, that if A is before B and B before C, A is before C; and so on. Whatever is valid within any particular order is real within that order.

(2) *Reality as Existence.*—This is probably the most common acceptation of the term. Here we are concerned with one special order—viz. the order of experience. Whatever is experienced, or appears to be implied in experience, is said to exist. Whales exist, but centaurs do not. Some things that exist are more or less evil; others are more or less good. There is pain and sin and death. There is also knowledge and beauty and love.

(3) *Reality as Perfection.*—Things are sometimes said to be more real, in proportion as they are more or less complete or perfect. A solid is said to be more real than a shadow, the solar system than a flash of lightning, a substance than one of its changing aspects or qualities, a man than an oyster, scientific knowledge than ordinary opinion, good than evil, beauty than ugliness. The famous ontological argument for the being of God turns on the doctrine that what is most perfect is most real—in other words, that the ideal is the real.

(4) *Reality as the Absolute or Eternal.*—It may be urged that nothing is really real (ὄντως ὄν) when its reality is subject to qualifications—i.e. when it can only be said to exist at some particular place and time, or as apprehended from some special point of view, or as contained within some limited order. Thus the phenomenal is contrasted with the noumenal, and only the latter is held to be, in the strictest sense, real. When Gorgias denied that anything is real, it would seem to have been in this sense that he denied it; and there are recent philosophers also who either deny reality in this sense or doubt whether it exists or can be known or expressed.[1]

[1] I have attempted to give a somewhat fuller account of the different ways in which the conception of reality may be used in an article on "The Meaning of Reality" in *Mind*, January 1914. On the chief types of theories about reality, reference may be made to Royce, *The World and the Individual*, vol. i.

Now, there is one supposition on which these various conceptions of reality may be reconciled—viz. the supposition that the universe is a perfect Cosmos. If so, perfection is real, and everything that is real is included in it. This reality would, moreover, be absolute and eternal, and all that is included in it would be absolute and eternal; and all that is ultimately true would be implied in it, and would share in its eternity. But, unless this supposition can be accepted, the various meanings of reality fall apart. Now, we are not yet in a position to give sufficient grounds for the acceptance of this supposition.

7. *Possibility, Probability, and Necessity.*—Whatever is implied in the general structure of reality may be said to be necessary; and whatever is definitely excluded by that structure may be said to be impossible. What is neither definitely implied nor excluded would seem to be possible. It may be that everything is either implied or excluded. If so, we could only speak of the possible from some limited point of view. It is possible, for instance, that a line may be produced indefinitely—i.e. there is nothing in the structure of the spatial order to exclude such production. It is possible that the earth may fall into the sun to-morrow—i.e. there is nothing in what we at present know of the structure of the solar system to exclude this possibility. Such an occurrence is, however, improbable—i.e. from the point of view of our present knowledge, either this event may not take place at all, or it may take place at some other time, and the chances of its happening to-morrow are, consequently, extremely small. It is, however, rather probable that this event will happen at some time—i.e. our present knowledge of the structure of the solar system leads us to expect it, though not with certainty.

Some further illustration of the meaning of possibility might be given by reference to the game of chess. A game of chess is usually played by two persons, in accordance with certain recognized rules. According to these rules, certain moves are possible and others are impossible. Sometimes, however, a single individual, who is interested in the intricacies of the game, works out problems relating to various ways

in which games might be played by two imaginary persons. These are not games that have been actually played—perhaps not games that would ever be likely to be played; but they are possible games, in accordance with the general rules. Another illustration might be taken from works of fiction. In well-constructed writings of this kind, the actions that are described are not, in general, the actions of existing persons. Even the characters of the persons may be in some respect different from those of any persons that ever existed, or are ever likely to exist; but the actions are such as the persons described might have been expected to perform. There may never have been persons so strongly characterized by pride and prejudice as in Jane Austen's story of that name; but, granting such persons, we can well suppose that they would act in the way that is described. This is, of course, still more apparent with such characters as Caliban and Mephistopheles. What is possible in such cases is determined by the general structure that is assumed; and this seems to apply to all cases of possibility.[1]

8. *Non-being*.—Every particular thing, as we have seen, has to be regarded as distinct from every other particular thing. A is A, and A is not B. There is thus both a positive and a negative aspect in the assertion of any existence. If anything can be conceived which is not included in the system of reality, that would not be at all; but whether any such thing can be conceived, may be open to doubt. If the universe is a perfect Cosmos, a complete Chaos would not be; but it is not certain that such a Chaos can even be conceived. On the other hand, it seems clear that a perfect Cosmos would not exclude, but would probably rather necessitate, some element of disorder in its separate parts. Hence there would be an aspect of negativity even in the most perfect reality. But this is a point that will have to be more fully considered at a later stage.[2]

9. *Degrees of Reality*.—It has become customary, as we have already noticed, to speak of degrees of Reality, as

[1] The recent work by Professor Meinong, *Ueber Möglichkeit und Wahrscheinlichkeit*, may be referred to for the general discussion of possibility and probability.

[2] See Book III, Chapter IV, § 4.

well as of degrees of Truth ; and it may be well to consider here more definitely the sense in which this expression may be understood. Sometimes our apprehension of things is very incomplete ; probably it is always incomplete in certain respects ; and when we gain a more complete apprehension of them than we had previously, we may certainly be said to know them more correctly ; and the object, as apprehended in the less complete way, may be said to be less real than the object as more fully apprehended. Again, the things that we know are often parts of larger wholes ; and, so long as we do not apprehend the wholes of which they are parts, we cannot be said to have a correct apprehension even of the parts. This is at least the case when they are parts of an organic unity. We could not be said to know much about the brain, if we did not understand the function that it fulfils in the life of the organism. Our apprehension of the part, in such a case, is not the apprehension of what is unreal ; but it may be said to be a less real object, when it is thus apprehended, than it is when its relations to the whole are understood. And, if the universe is an organic whole, this distinction will apply to the apprehension of all the objects in it. Hence there may be a sense in which it is legitimate to speak of an antithesis between appearance and reality, or of different degrees of reality ; though both these expressions are open to some objection. It seems better to confine ourselves to the statement that there are degrees of completeness in our apprehension of objects, and degrees of correctness in our beliefs about them. Certainly, at least, it is very misleading to say that what is important or valuable is more real than what is less important or less valuable. Everything is real, when it is seen in its proper place within the whole ; but the place of some things is larger or more important than that of others ; and their places may be more or less clearly apprehended. But the significance of these distinctions may become more apparent as we proceed.[1]

[1] See especially the account of different modes of unity in Book II, Chapter V, and the Note at the end of Book III. Reference may also be made with advantage to Green's *Prolegomena to Ethics*, §§ 22–4, where the meaning of reality is clearly explained ; though the doctrine of relations that is there set forth may be open to some objection.

CHAPTER IX

THE GENERAL NATURE OF KNOWLEDGE

1. *The Meaning of Knowledge.*—We have now reached a point at which it seems possible to take a general survey of the nature and limitations of human knowledge.

Knowledge may be defined as correct belief, together with the apprehension of its ground. It is customary to use the word Cognition, especially in Psychology, in a much wider sense than this ; and it is then necessary to distinguish various stages in its development, especially sensation, perception, imagination, conception. But it seems best to use the word Apprehension in this wide sense. This we shall have occasion to discuss more fully at a later stage.[1] In the meantime, it is sufficient to note that knowledge is generally understood to mean a more definite mode of apprehension than simple Belief ; and it is this most definite mode of apprehension that we have here in view. At the same time, it is well to remember that there are few things of which we can be said to have knowledge in this definite sense. The grounds of our beliefs are generally only proximate grounds. Plato and Spinoza distinguished four grades [2] in the development of our beliefs ; but with these we need not at present concern ourselves. The general grounds on which our beliefs are based have been already sufficiently noticed for our purpose. Often they rest on somewhat vague experiences or traditions. It is only in the more exact sciences that their grounds are fully considered ; and even in these some hypotheses or postulates are frequently accepted

[1] See Book II, Chapter VI, especially §§ 11, 12, 13.

[2] Spinoza reduced them to three in his *Ethica* and in his *Treatise on God and Man* It is in his treatise *On the Improvement of the Understanding* that he adopts the fourfold division. Plato's division is explained in the *Republic*, Books VI and VII.

without very precise grounds. As Plato and Spinoza both urge, it is extremely difficult to attain knowledge in the fullest sense of the word. The unsatisfactoriness of knowledge that is not fully grounded is perhaps best brought out in the *Theætetus* of Plato. We may have to admit, in the end, that perfect knowledge is rather an ideal for the human mind than an actual possession, at least with regard to some of the most important problems. Still, it is well to understand what the ideal is, and not to pretend to have knowledge when we have only some form of opinion. We have now to inquire more definitely what are the fundamental grounds on which our beliefs are ultimately based, and what is the general structure of the knowledge that is thus built up.

2. *Explicit and Implicit Knowledge.*—If we regard knowledge, in the strictest sense, as existing only when we have a definite belief together with the apprehension of its ground, it is evident, as has just been indicated, that much of what is called knowledge is hardly worthy of the name. But we may recognize that there is often knowledge that is quite valuable, though some of its important aspects are not explicitly present. Plato, by his image of the aviary in the *Theætetus*, indicated the distinction between knowledge that is in our possession and that which is actually present to us; and this distinction was further emphasized by Aristotle in his *Ethics*,[1] in connection with the Socratic doctrine that Virtue is Knowledge. When we say that we know a thing—e.g. a proposition in Geometry or a fact of history—we may have forgotten the exact grounds on which we believe it; and yet the grounds may be perfectly adequate. But there is always a danger, in such cases, that our belief may be partly erroneous. We may think that the grounds support more than they will actually bear. Dogmatism is usually understood to mean the holding of opinions without adequate realization of the grounds that support them. But it is evident that we cannot always have the grounds definitely before our minds. Some economy of thought is necessary for the carrying on of human life. Both the judgments that constitute the subject-matter of our beliefs and the grounds

[1] Book VI, chapter iii.

on which they rest are generally present to us only in a somewhat schematic fashion ; and this is often quite enough for practical purposes. Hume explained our ability to carry on thought in this way as being due to a "magical faculty in the soul" ;[1] but it is perhaps truer to say that it is due to the objective order in the material with which we deal. It is enough that we should hold one end of the thread of connections. It is, in general, only when we attempt to draw inferences from our knowledge that it becomes important to set the judgments definitely before our minds, to see clearly the grounds upon which they depend, and to determine to what extent the grounds are adequate. But it is only when we do this that we can be said to have knowledge in the fullest sense.

A distinction is sometimes drawn between immediate and mediate knowledge, or, again, between what Mr. Russell calls knowledge by acquaintance[2] and knowledge by description ; but, if we are right in our general interpretation of the meaning of knowledge, it would seem that all knowledge involves some mediation and some element of description. We have, indeed, some immediate experiences (e.g. of pain, colour, etc.), but these can hardly be called knowledge. They become knowledge only when we reflect upon them and form beliefs about them ; and, in doing this, we are always going beyond what is immediately before us. The degree in which this is the case may, of course, be very different in different instances. I know that I am experiencing a pain much more immediately than I know that there is another side to the moon besides the one that is visible ; and I am more directly acquainted with what is going on around me than with the facts of history. Yet, broadly speaking, they are all known in the same way, so far as they are really known at all.

3. *Individual and General Knowledge*.—The grounds on which our beliefs rest, however, are not merely sometimes forgotten by us. It is sometimes the case that the grounds have never been directly apprehended by us at all ; and yet they may be perfectly valid grounds. This is due, in

[1] *Treatise on Human Nature*, Book I, Part I. chapter viii.

[2] A phrase first used by Grote, *Exploratio Philosophica*, vol. i, Book II, chapter vii.

the main, to what has been called the co-operative element in the building up of knowledge. Most people know that the earth revolves round the sun; but the number of those who could give any clear account of the grounds on which this belief rests, is probably very small. Some have forgotten the grounds, and many others have never known them. Their knowledge, in such cases, depends on their acceptance of generally received opinions; but they are accepted, not as mere opinions, but as beliefs that are understood to have been fully established by experts. At any given time, the grounds for such beliefs may not be definitely present to any one mind. Indeed, where there is a long chain of reasoning involved, the full grounds may never have been present to any one mind. They may not even be fully expressed in any one book. Yet knowledge of this kind can hardly be said to be unreal. This is one of the ways in which the unity of the human race becomes apparent; and that is a subject that will have to be dealt with at a later stage.[1] What is important in such cases, is not that we should have all the knowledge at hand, but that we should know where to find it when it is wanted. We may know sufficiently well how to deal with a particular disease, if we know where the specialist who understands it lives; and even this we may be able to discover by reference to a directory. Something similar is true in many other cases. It remains true, however, that knowledge of this kind cannot be called knowledge in the fullest sense. It is like money that we have at the bank, as distinguished from money in the hand or pocket. It is less directly present, but often safer and more convenient. Men are more liable to err than mankind; and it is easier to draw upon the resources of the world than to tread the winepress alone.

4. *Intuitive Elements in Knowledge.*—It is evident that many of our beliefs are based on the information derived through our senses. "Seeing is believing"; and touching, hearing, tasting, smelling, and other modes of sense apprehension, are hardly less potent in conveying a certain kind of conviction. The contribution to knowledge that is thus

[1] Book II, Chapter XI, especially § 5.

received is comparatively slight; yet it would seem to be considerably greater than has sometimes been supposed. Hume described the material contributed by the senses as a stream of disconnected impressions; and Kant also followed him so far as to refer to the "manifold of sense" as the matter from which our knowledge is built up. But it seems clear that the data of sense do not constitute a disconnected manifold. In two ways at least they are connected. They supply us with universals, and they fall into definite orders. This has already been indicated; but it may be well to emphasize it once more. Sense data of the same kind recur over and over again; and it seems clear that, but for this, they would contribute nothing definite to our knowledge. Redness, pain, tone, strain, and the like, have definite significance long before they are named and placed in definite relations to one another. Further, they occur before or after each other, and with varying degrees of intensity; and these orders also have significance before they are analysed and expressed in judgments. Even animals very low in the scale of conscious life can hardly be supposed to be wholly destitute of some apprehension of the identities and modes of order that are thus contained in the receptivity of sense. Such apprehensions may be called intuitive, and must, it would seem, be regarded as furnishing us with the simplest basis for our subsequent intellectual constructions.

5. *Elements of Intellectual Construction.*—The material supplied by intuition has to be reduced to definite order by the formation of well-founded beliefs. Some of these do not carry us much beyond the material that is provided by our senses. Our beliefs about the ordinary things that we see, hear, touch, taste, smell, and in other ways sensuously apprehend are, to begin with, only a clear formulation of what is directly implied in animal behaviour. But reflection on these implications soon carries us far beyond what is thus immediately supplied. Thus it is natural to distinguish between what is immediately and what is mediately known, or between knowledge by acquaintance and knowledge by description. Yet distinctions of this kind are to some extent misleading. All knowledge involves some degree of mediation.

The man who is "acquainted with grief" is in a different position from one who simply grieves; and even the man who grieves is hardly in the same position as the animal that is dejected. The man who grieves is not simply affected by the present situation, as the animal may be. He is, to some extent, "looking before and after," and is affected by many things that are not directly apprehended in a sensuous way. The man who can be described as being "acquainted with grief" has a still larger outlook on the troubles of life. Still, it is true to say that some of our knowledge is based on material that is mainly supplied by present impressions, while other parts of our knowledge have very little basis in what is immediately presented. The possibility of such knowledge is dependent on the definite recognition of the universals and orders which are implicit even in the simplest apprehension. We regard colours, sounds, temperatures, pains, etc., as recurring facts in the general order of human experience. We refer them to particular times and places, and to particular conscious centres; and we think of them as having intensities, as being numerable, as lasting, as standing in causal relations to one another and to other objects, and as forming parts of a totality of things that are or might be apprehended.

6. *Elements of Faith.*—Such beliefs tend to outrun anything that can be described as definite and well-grounded knowledge. We are constantly assuming a more thorough order in the objects that we apprehend than our actual experience of them fully warrants. Such surplus belief is commonly described as faith; and it would be difficult to carry on human life at all without some degree of it. It is necessary for us, for instance, to have some faith in our fellow-men. We believe that they will, in general, fulfil their promises, that they will show a certain continuity in their habits and purposes, that they will at least be true to their characters. This confidence is not always justified. Human action is essentially incalculable; and we have never any complete ground for believing that it will not turn out to be widely different from what we anticipate. Yet life would come to a standstill if we did not place some degree of reliance on the stability of human character. Similarly, we have faith

in the continuity of the special orders that are implied in our ordinary experience. We believe that time will run on continuously, that things will continue to succeed one another and to coexist more or less in the ways to which we have become accustomed ; that seed-time and harvest, summer and winter, can at least be counted upon for an indefinite time to come ; that, in short, there is a certain uniformity in the natural world as well as in the actions of our fellow-men. This confidence has on the whole justified itself in the past ; though we are constantly discovering that the kind of uniformity on which we can count is not quite what we had previously supposed.

Not only, however, do we reckon on the continuity of the orders with which we have become acquainted. We tend to believe that there is a more perfect order in the universe as a whole than that which has been in the past definitely discovered. The anticipations of nature and forecasts of human history depend on this kind of faith. Having found, for instance, that there are various ways in which progress has been brought about by human effort, we have a tendency to believe that we may advance to a kind of perfection of which we have no experience, that the difficulties with which we have to contend will be finally eliminated, that

> somehow good
> Will be the final goal of ill.

Such a view may lead us in the end to a sublime optimism such as that which was held by Browning :—

> God's in His heaven ;
> All's right with the world.

How far any such faith as this can be justified, we are not at present in a position to discuss. It is clear, however, that there is some justification at least for those more partial forms of faith to which reference has been made. The anticipations that have been made in the past have been, to a considerable extent, verified ; [1] and the success that has attended

[1] Mr. Balfour, in his recent book on *Theism and Humanism* (Lecture IX), has given interesting illustrations of this, and has based upon them an argument for the being of God.

such efforts gives us a more or less well-grounded confidence in making similar anticipations. Also, as has been already indicated, the practical carrying on of human life makes it necessary for us to anticipate a good deal that cannot be fully known. This is a partial justification for the "will to believe" that has been so much emphasized by the pragmatists, and also for some of the postulates that have been stated by Kant as being required for the moral life. But the further consideration of these must be reserved for future treatment.[1]

7. *General Structure of the World as Known.*—Many attempts have been made to distinguish between the formal and the material aspects of the world as we know it. The Pythagoreans appear to have been the first who laid special emphasis on this distinction. It seems to be implied also in the contrast drawn by Anaxagoras between the primeval chaos and the νοῦς which gives it order. The Platonic contrast also between the ideal Forms or Types and the particular things in which they are embodied or copied must be regarded as an antithesis of the same general character. But it was Aristotle who gave prominence and definiteness to this distinction, and who made it into a fundamental—perhaps the most fundamental—feature of his philosophy. According to him, every existing thing has the two aspects of Form and Matter; but what is Form with reference to some particular Matter, becomes the Matter for a higher Form. The difficulty in this doctrine, however, comes out very clearly in the philosophy of Aristotle. Unless there is an infinite series, which he does not postulate, we must suppose a primitive material—πρώτη ὕλη—at the bottom of the scale; and this would be Matter without Form. But he admits that this can only be conceived in a negative way, as the absolutely unformed. It seems impossible to attach any definite meaning to such a conception. It is the thought of mere nonentity, and it is hard to see how a Form can be imposed upon nothing.

There is a similar difficulty in the philosophy of Kant. The primitive material, according to Kant, is that which is

[1] See especially the concluding chapter, §§ 2, 3, 4.

simply sensed—a colour, a sound, and so forth. This receives form by being placed in the order of time. It may be further formed by being referred to a position in space. It is given a still more definite form by the application of the categories of quantity, quality, relation, and modality. Though, however, quality appears as one of these categories, Kant explains that this is only to be interpreted as meaning degree. The quality, it would seem, is to be regarded as an aspect of the given material. But surely the quality—and, indeed, also the kind—of any sense material is of the nature of form. A red colour is distinguished from a blue one by its place in the colour scale, just as it may be distinguished from another red colour by its intensity or degree. And, as it seems clear that a sense datum is never presented without some quality and degree, it can hardly be said to be formless. Thus for Kant, as for Aristotle, it does not appear to be possible to point to anything definite that could be characterized as an unformed material.[1]

The latest way in which a distinction of this kind has been set forth is that adopted by Mr. Bradley, who expresses the antithesis as that between the "that" and the "what." This puts it in a more definite way, and a way that it is not easy to set aside; and yet the antithesis, even in this form, seems to disappear on reflection, as it does in those that have been previously referred to. For what is a "that"? The very question suffices to indicate that, in order to have any intelligible meaning at all, it must be a "what." Like the *πρώτη ὕλη* of Aristotle, it would seem to be a negative conception, the conception of a "what" that is as yet undetermined, an irreducible surd of particularity. But is there any real reason for the recognition of such a surd? Take the case of a particular experience of colour. It is, let us suppose, a particular shade of red, with a certain intensity,

[1] The opposition between Form and Matter has been well discussed by Green in his *Prolegomena to Ethics*. See especially §§ 43–5 and the adjoining sections. But there appears to be a certain lack of clearness in the doctrine of relations which he uses in this connection. This doctrine tends to make it seem as if a certain irreducible residuum were left over of elements between which the relations hold. If this point is pressed, it naturally leads to some form of pluralism. The conception of orders as forming the basis for relations appears to me to avoid this difficulty; and it is perhaps implicit in some of Green's own statements. See above, Chapter VII, §§ 3 and 4.

a certain degree of saturation, lasting for a certain time, apprehended by a certain conscious centre, in relation to certain physical objects and to a certain nervous structure having certain positions in space. All this can be described, and means the placing of it either within or in relation to certain specific orders. What is there left? Simply, it would seem, the fact that it is a colour—i.e. that it belongs to a certain kind. Now, it may be admitted for the present that kinds do not constitute a definite order. There is a problem here that will have to be considered at a later stage. But it is surely clear at least that a kind is a "what." Kinds are at least universals, though they may be universals that do not fall within any order. They may be separated from one another by an impassable gulf. If so, we have here a foundation for a pluralistic conception of the universe, but not for a distinction between "that" and "what," or between Matter and Form. And, as it thus appears that all such distinctions break down (for what is stated about colour is clearly applicable to any other object of experience), we seem to be entitled to reject this ancient antithesis, and to maintain that everything is essentially Form; and that the particular —the Matter or the "that"—is simply a point at which certain universals or orders meet or intersect one another. If this is granted, we have got a considerable way towards the determination of the essential nature of the world as known.[1]

8. *Limits of Reasonable Doubt.*—We are, of course, still far from the establishment of the view that the universe can be regarded as a completely intelligible system, which is the goal at which all science, and especially all philosophy, must be regarded as aiming. The relations between distinct kinds may be unintelligible. The universals and orders that constitute the structure of the world that we know may be cut off from one another by impassable gulfs; and they

[1] Some further difficulties connected with the subject here referred to, are dealt with in Book III, Chapter II, §§ 1 and 2. It should be added that the above paragraph is not intended as a criticism on the special doctrine of Mr. Bradley; since I do not understand that he regards the antithesis to which reference has been made as an ultimate one. But, if the antithesis is pressed, it seems to me to be open to the objections that I have sought to indicate.

may not even be completely coherent within themselves. There is thus considerable room left for certain forms of Scepticism and Agnosticism. But at least it would appear that certain definite limitations can be set to these. We cannot, without manifest absurdity, doubt that there are universals and orders in the world that we experience. Such a scepticism as that of Hume, which rests on the supposition that all our perceptions are distinct and separate, is—as, indeed, he was himself pretty clearly aware—essentially unreasonable. Such an agnosticism as that of Kant, however, which rests on the view that the attempt to view the world as a completely intelligible system breaks down, is still a possible attitude. It can only be refuted by showing that there is some interpretation of the world as a completely intelligible system that does not break down ; and this we are certainly as yet far from having shown. It may very well be even that we shall never succeed in showing it with any completeness. It may be that the pursuit of truth is the ultimate human attitude, rather than its attainment. But this would not jusify agnosticism, in the sense of a definite belief that the conception of the world as an intelligible system is intrinsically impossible. We may at least hope to give grounds for believing that the difficulties in the way of the interpretation of our world are not such as to force us to adopt any such conclusion. If we cannot establish a dogmatic theory of the structure of the universe, we may at least hope to prevent the establishment of the dogmatic theory that it has no intelligible structure, and perhaps even to give some grounds for thinking that the supposition that it has an intelligible structure—in other words, that it forms a perfect Cosmos—is the more probable hypothesis.[1]

9. *Absolute Knowledge and Knowledge of the Absolute.*—What is indicated in the previous section may be made somewhat more definite by means of the distinction between absolute knowledge and knowledge of the Absolute. Scepticism, in its most extreme form, is the denial or doubt of the possibility of any absolute knowledge ; while Agnosticism, in its most definite sense, is the denial or doubt

[1] See Book III, especially Chapter IV and the concluding Chapter.

of the possibility of any knowledge of the Absolute. By absolute knowledge I understand a belief that is known with complete certainty to be correct. By knowledge of the Absolute I understand a correct belief with regard to the structure of the universe as a whole. Now, scepticism, as thus understood, appears to be unreasonable. There are some things of which our knowledge seems to be absolute. That $2 + 2 = 4$, that red is different from blue, that colour is different from sound and both from pain, that our experiences change, that some experiences are more pleasant than others, that if something is true of a class it is true of each member of the class, are statements that it is hardly possible to doubt. Descartes suggested that even in things so evident as these we might suppose that there is some powerful and malignant being who is leading us astray. But obviously, if the statements are doubtful at all, a powerful and malignant being would not be necessary to make them so. It may certainly be admitted that, as soon as we proceed to interpret even the most self-evident of our beliefs, we are liable to fall into error. But, in this sense, we may even doubt that we doubt. We may be misinterpreting our attitude. To press doubt in this way is perhaps not absolutely impossible. It is not impossible to become mad. But, so long as we retain our reason, it seems clear that there are some things that cannot be doubted. Doubt is a mode of belief: it is the belief that something is uncertain. Now, we can only believe that something is uncertain by distinguishing it from things that are certain. To doubt whether anything is certain is also to doubt whether anything is uncertain. Scepticism, in this sense, is "a medicine that purges out itself along with the disease." What it leaves is the recognition that, while a few things are certain, a much larger number are only probable—i.e. we have some grounds for believing them, but not grounds that are absolutely conclusive. To this class belong most, if not all, of our scientific theories. It is pretty certain, for instance, that the relation expressed by the law of Gravitation holds between material bodies; but it is doubtful whether it holds between all things that occupy space. Already some limits to its application appear to have been discovered. The principle of conservation of energy

does not hold in some of the forms in which it was first conceived ; and it may be doubted whether it has, even now, been formulated in a way that is quite final. The doctrine of evolution probably waits for many fresh discoveries before we can have even a moderate degree of certainty with regard to the precise way in which it works. The general principle of causation is less open to question ; but, even with regard to this, it can hardly be said to be absolutely absurd—however improbable it may be—to suppose that there is some element of Chance or Contingency at some point in the Universe. Similar remarks may be made about the principles of association and continuity as applied to the development of our conscious life. All such theories are subject to revision.

Now, it would certainly be strange if our knowledge of the Universe as a whole were less open to doubt than our knowledge of particular aspects of it. Our knowledge begins with the parts ; and the more we extend its scope, the more room there is for error. Hence a certain degree of doubt with regard to the ultimate structure of the Universe is not unreasonable. Dogmatic assertion or denial would seem to be equally out of place. But the recognition of this does not imply that we may not form probable hypotheses. The possibility of this, however, we must reserve for future consideration.

10. *Idealism and Realism.*—We have now reached a point at which it may be profitable to make some remarks upon those interpretations of the world that are commonly described as idealistic and realistic respectively. These terms are highly ambiguous ; and indeed, in themselves, they are almost meaningless. But they have been used to describe certain tendencies of thought that are worth noticing. The term idealism has been used to characterize two very different points of view, one of which is most conspicuously represented by Plato, the other by Berkeley. The view of Plato may be briefly expressed by saying that he held that what is really known is a system of Universals, constituting an Order, the interpretation of which is to be found in the supreme Universal, which he called the Form of Good.

Berkeley's view, on the other hand, may be briefly expressed by saying that reality consists of conscious centres, together with what they apprehend at the moment at which it is apprehended. These views, which (as we have already noticed) are almost the opposites of one another, have both been called idealism in consequence of a change of meaning in the word Idea. At first it meant a Form,[1] then it came to mean a Universal, then the Universal as apprehended by some conscious centre, and finally anything that is apprehended by a conscious centre. The term Realism has undergone somewhat similar transformations. At first it was applied to the doctrine that universals and orders are real, and are not dependent for their reality on their apprehension by conscious centres. In this sense Plato is the most conspicuous representative of Realism, just as he is of Idealism in its older sense. But Realism has since come to mean any doctrine that asserts the reality of anything as being independent of its apprehension by conscious centres. In this sense even Berkeley is a Realist, in so far as he held that conscious centres themselves are real independently of their apprehension by one another. Hume came nearer to complete opposition to Realism in this, or indeed in any, sense. What Berkeley chiefly denied was the reality of material substance; and this was one of the few points that he had in common with Plato. Hence Realism has sometimes been understood to mean the doctrine of the independent reality of material substance. When understood in this sense, Realism may be fairly said to be opposed to the Idealism both of Plato and of Berkeley. But in recent times the term has been applied to the views of certain writers who are mainly concerned with the affirmation of the reality of universals and orders. Some at least of these writers do not affirm the independent reality of material substance. Some even agree with Berkeley in thinking that certain things that we apprehend are real only in so far as they are apprehended by conscious centres. Thus it has become very difficult to distinguish between idealists and realists. It may, however, be urged at least that the Berkeleyan type of idealism can hardly be supported. What we have now seen with regard

[1] Or a Figure, thus connecting with the Pythagorean Numbers.

to the meaning of knowledge and reality leads us to recognize that it is fundamentally erroneous.

Berkeley's view rested, as Reid pointed out, on the doctrine of representative perception, which is traceable to Descartes. Descartes, as we have already noted, affirmed that the only thing that could not be doubted was the reality of the conscious centre at the moment at which it is aware of itself. Other things, he contended, are not known directly, but only through their representations, which he called ideas. Berkeley sought to improve on this, by holding that the representations alone are real; and that we have no real ground for maintaining the reality of that which they represent or picture. This he urged chiefly as an argument against the reality of material substance; and on that particular point he may have been right. We shall have occasion to consider this at a later stage. But it seems obvious that the general doctrine of representative perception is erroneous. We do not apprehend pictures of numbers or colours or sounds or degrees of heat or time or extension. What we apprehend is numbers themselves, colours, and so forth. And it seems clear that the meaning of what is thus apprehended is not dependent on the fact that a particular conscious centre apprehends it. Whether it is in any way dependent on the existence of conscious centres in general may be more open to doubt; but with that question we need not at present concern ourselves.

It appears from these considerations that there is no very definite opposition between Idealism, at least in its Platonic sense, and Realism, at least in the sense in which it has been most recently urged. There is, however, one point of difference which it is well to notice. Plato did not merely maintain the reality of universals or orders. He urged also that they are to be interpreted as forming part of one order, in which the central principle is the Form of Good. Modern Realism, in general, does not recognize any such principle of unity. Now, this constitutes a fundamental difference, on which it may be well to make some observations.

11.—*Pluralism and Cosmism.*—A much more definite and fundamental antithesis than that between Idealism and Realism

is that between Pluralism and Cosmism. The independent reality of particular things may be understood to mean, not merely their independence of conscious centres, but their independence of the whole to which they belong. It may even be denied or questioned, that there is any real whole. Views of this kind seem to be best described as pluralistic ; and most of those who are called Realists seem to be Pluralists.[1] They think of real things, whether particular or universal, as independent of one another. Most forms of Idealism, on the other hand, are, more or less definitely, connected with a view of the Universe as a Cosmos. Now, we are hardly yet in a position to discuss this antithesis. We have seen that kinds appear to be cut off from one another, in the phrase of Anaxagoras, as if " with a hatchet." So far, there is some ground for maintaining at least a partial Pluralism. On the other hand, our constant discovery of fresh modes of order in the Universe makes it difficult for us to rest content with any apparent lack of order. A cosmic conception always presents itself as an ideal for thought. But how far we are justified in accepting this conception as a guiding principle with reference to the Universe in general, is a problem that must be deferred for consideration at a later stage. In the meantime, it will be well to notice more definitely at this point some of the chief views that have been held on the general subject of knowledge.

[1] For some further comments on the views of the New Realists, see Chapter X, §§ 13 and 14, Book II, Chapter V, § 5, and Book III, Chapter I, § 9. Professor D. C. Macintosh, in his recent book on *The Problem of Knowledge* (George Allen & Unwin Ltd.), deals very fully and sympathetically with their leading doctrines, and gives useful references to contemporary discussions on the whole subject.

CHAPTER X

THEORIES OF KNOWLEDGE[1]

1. *Introductory Remarks.*—Although it is no part of our present design to deal expressly with the historical development of philosophical theories, yet it seems important at this point to notice some of the chief ways in which the theory of knowledge has been conceived, especially in modern times. While it is true that some Greek views on the subject, and even some Oriental views, and indeed some Medieval views as well, are of great interest and lasting value, yet the discussion of the subject at the present time turns mainly on conceptions that have been brought into prominence since the time of Descartes. The early Greek philosophers began on the whole[2] with the assumption of the general validity of ordinary knowledge, and were only gradually led, by the emergence of dialectical problems, to realize the difficulties that are involved in it. As a result of this realization, a general doctrine of knowledge was developed, especially by Plato and Aristotle, which is still a source of enlightenment, and to which modern writers tend perpetually to recur. These philosophers, however, were animated by a sturdy faith in the power of rational reflection to solve all the difficulties that it raises—a faith which they only partially succeeded in justifying. Hence a time of scepticism gradually supervened; and it is only through the labours of many generations, initiated in the main by the constructive efforts of Descartes,

[1] A few passages in this chapter have been reproduced from the article "Metaphysics" in the *Encyclopædia of Religion and Ethics.*

[2] Perhaps this requires some qualification, especially in the case of the Pythagoreans; but such an account of the teaching of Pythagoras as is given, for instance, by Schuré in his interesting book on *Les Grands Initiés* seems to have but little historical justification. See Professor Burnet's *Greek Philosophy*, Thales to Plato, chapter ii, and *Early Greek Philosophy*, 2nd edition, pp. 91–124.

that it has been possible to restore something that at least approximates to the confidence by which the work of Plato and Aristotle was inspired.

2. *The Doctrine of Representative Ideas.*—The general attitude of Descartes has already been noticed, and its value has been emphasized as a starting-point for a philosophical construction. It has also been indicated that, on its more positive side, it had serious deficiencies. The nature of these has now to be more precisely stated. We have seen that he set out with the affirmation of the indisputable reality of the individual self, as the centre at which thoughts or beliefs are entertained. The validity of the objects of these beliefs, other than that of the reality of the individual centre, remained to be considered. This problem presented itself to Descartes mainly in the form of the two questions, as to the reality of the being of God, and as to that of the material world. The former he sought to establish chiefly by the argument (partly reproduced from Plato) that the reality of the finite or imperfect implies that of the infinite or perfect. This we shall have occasion to consider more definitely at a later stage.[1] The reality of the material world was established in a more indirect way; and the conception of knowledge that was developed in this attempt is what chiefly concerns us at present. He based his argument for the reality of the material world primarily on the fact that we have a clear and distinct idea of it; and this leads us at once to notice the doctrine of representative ideas, which was thus made prominent in the theory of knowledge. The doctrine can hardly be said to have been introduced by him. It is implied in some previous theories, notably in the Stoical doctrine of the criterion of truth. But it was the emphasis laid upon it by Descartes that gave it the currency and pervading influence that it long retained in modern speculation, and from which even now we have hardly been able to free ourselves completely.

The doctrine of representative ideas, as understood by Descartes, can be pretty easily explained. Having adopted

[1] See especially Book III, Chapter III, § 1, Chapter IV, § 2, and concluding chapter, §§ 4 and 5.

the view that the only things of which we are immediately certain are the self and its ideas, he conceived that the latter could be rightly described as being "in the mind." This implies a kind of metaphor, the full significance of which will call for some further discussion.[1] It involves, as it has been put, the comparison of the individual mind to a picture-gallery, the pictures being characterized as ideas. One of the pictures is that of the gallery itself—i.e. the idea of the individual mind as a thinking substance; and this picture must be supposed to have been always in it, so that the idea may be said to be "innate." Some others, notably that of God, must also be supposed to have been always there, being more or less definitely implied in the idea of the self. Some, such as the ideas of centaurs or chimeras, may be regarded as pictures that have been painted or constructed by the self. Some, such as emotional experiences and purely sensible qualities, not being clear and distinct, may be held to be mere daubs, of no special significance for knowledge, though of some practical value. But there are some that appear to be elaborate portraits; and these may be supposed to be the portraits of beings external to the mind, and to have been, as it were, handed in by them —presented, as Mr. Bradley has put it, with their compliments. This is, no doubt, a somewhat crude way of stating the doctrine; but it appears to be substantially what Descartes sought to maintain; and, with some modifications, it reappears in the writings of several other philosophers.

The objections to such a theory are fairly obvious. When I am conscious of myself, what I am conscious of is pretty clearly not an idea or picture of myself—it *is* myself. When I am conscious of pain or hunger, of a sound or colour, or of a particular degree of heat, it is a certain kind of pain, a certain feeling of hunger, some specific sound or colour, some degree of warmth, that I apprehend, not ideas or pictures of them; and they are, in general, quite clear and distinct. A complex object, such as a house or mountain, is no doubt apprehended in a more partial manner; and what is partially or imperfectly apprehended may be contrasted with the whole that is meant or intended or guessed at, as a mere idea or

[1] See below, Book II, Chapters V and VI.

picture of it. How far any of the objects that are thus apprehended can properly be said to be "in the mind," is a matter for further consideration. But it seems clear at least that it is only in special cases that the metaphor of a picture can, with any real propriety, be applied to it. But, before raising any further objections, it may be well to notice some of the consequences to which this way of thinking led.

3. *The Cartesian Dualism.*—From the view that Descartes was thus led to take, the Universe was naturally regarded as falling into two distinct parts. On the one hand, there is the mind, with its ideas or pictures; on the other hand, there is the world that is pictured, distinct from the individual mind. The world thus conceived, however, is very different from the world as it is commonly supposed to exist. It contains God, the infinite or perfect intelligence, a large number of other finite minds, and the system of the material universe. The material is to be conceived as containing only that which can be clearly and distinctly pictured as existing independently of any mind. This would clearly not apply to such an object as a particular pain or hunger or emotion; and further reflection leads to the conviction that it does not apply to taste, smell, sound, or colour, or even to such qualities as hardness or softness. Hence it is reduced finally to those characteristics that are purely spatial. But if the material world is simply space or extension, it seems clear that it cannot even contain motion: there is nothing in it to move. Yet Descartes continues to assume that it does contain motion, and that this motion is constant in amount (estimated by reference to volume and velocity). But, as pure space has no distinguishable modes, it is not easy to see what could be meant by saying that its parts move. The modes that might move in it would need to have some distinguishable characteristics, such as hardness or softness, colour, heat, etc.; i.e. they would be qualities that are experienced, or at least that have the potentiality of giving rise to particular experiences.[1] Space in itself can only, it

[1] We should thus be led to the doctrine of "permanent possibilities of sensation," as set forth by Mill in his *Examination of Sir William Hamilton*, chapter xi. But, as it has been said, "a naked possibility is nothing."

would seem, be regarded as a receptacle (a *ὑποδοχή*, as Plato [1] called it) in which qualities (the *εἰσιόντα καὶ ἐξιόντα*) are distributed. But Descartes has eliminated all such qualities. His material universe is, to all intents, a vacuum.

The question would then remain, how these qualities, or potentialities of experience, which must somehow be conceded, are to be regarded. Are they to be described as modes of mind? Even this hardly seems to be possible, from the point of view of Descartes. Mind, according to him, is simply a thinking substance. Now, it would appear that no amount of pure thinking could ever generate heat or colour or smell or any other of those qualities of which the potentialities may be supposed to constitute the modes that belong to particular parts of space. Hence Descartes was forced to regard these modes, not as properly belonging either to mind or matter as such, but as relations between them, arising from a certain union of the two. But this amounts to the confession that all the specific features of the world as we know it—all that gives colour and warmth either to the mental or to the material system—belong neither to the thinking nor to the extended substance; and that the assumption of these two substances is wholly futile as an explanation of the world of our experience. The subsequent history of the Cartesian school may be said to consist of little else than the gradual recognition of this futility.[2]

4. *Objective Idealism.*—As soon as the futility of the two-substance theory is fully recognized, the whole weight of the Cartesian philosophy has to be thrown upon the third substance, which was from the first kept in reserve behind the other two—God, the being absolutely infinite and perfect. The general conception of the infinite and perfect will have to be discussed in a later chapter.[3] In the meantime, we have only to notice the general way in which this conception came into prominence in the development of the Cartesian philosophy. The doctrine of occasional causes meant essentially the recognition that all explanation of particular occurrences—i.e. the changes that take place in the modes

[1] *Timæus*, 50 C.

[2] For some further discussion of the Cartesian Dualism, see below, Book II, Chapter VI, § 14.

[3] Book III, Chapters III and IV.

of the two finite types of substance—has to be sought in the infinite. But, as the infinite was primarily thought of as being of the nature of mind, to seek an explanation there was little more than an admission that no explanation was to be found. The doctrine of Malebranche, that "we see all things in God," was a considerable step in advance; for it was nearly, if not quite, an abandonment of the theory of representative ideas. It involved the denial that ideas are properly to be regarded as "in the mind," and are rather to be treated as objects that the mind apprehends as existing in something distinguishable from itself. The full consequences of this were, however, not realized by Malebranche. These consequences were made much more apparent by Spinoza, who acknowledged only a single substance, having the two main attributes of thought and extension. But, while this change made the Cartesian philosophy more coherent, it did not help materially to explain the particular modes of existence. Leibniz sought to supply this deficiency by his doctrine of monads. But the finite monads are distinguished from the infinite and perfect being only by a certain element of negativity; and it is pretty evident that mere negation can never explain the existence of particular positive qualities, such as colour or pleasantness. Leibniz sought for the explanation of the particular characteristics of the universe that we know by the conception of the "best of possible worlds"; but if God is absolutely perfect, as all the Cartesians supposed, and were bound to suppose, it seems clear that there can be no need of any finite beings external to himself; and it is hard to see how there can be any explanation of the existence of such beings within him.

In general, however, it may be said that the final outcome of Cartesianism was not a dualism, but what may perhaps be best characterized as a form of objective idealism —i.e. the conception of the universe as a spiritual whole, of which the existence of finite beings is either a passing mode or an imperfect emanation. How such modes or emanations can be reconciled with the perfection of the whole, is an unsolved problem; but it is a problem that presents considerable difficulties to other types of idealism as well. But it is at least important to observe that this form of idealism

is to be distinguished from the more purely subjective idealism of Berkeley and from the absolute idealism of some later philosophers; though it is true that the distinction is one that tends at certain points to become evanescent.

5. *The Attitude of Locke.*—The chief line of British speculation, of which Locke may be regarded as the founder,[1] is closely connected with the Cartesian position, but mainly in its more critical, as distinguished from its more constructive, aspects.[2] He adopted the general theory of representative ideas, but was not as confident as Descartes was of the possibility of passing from the representation to the thing that is represented. Hence he confined himself more purely to the psychological aspects of knowledge, as being essentially an apprehension of relations between ideas; and indeed it seems to have been only by a truly magnificent inconsistency[3] that he ever conceived himself to be entitled to pass from ideas in the mind to qualities in things, and to the knowledge of the reality of substance. Apart from the comprehensiveness of his survey, and some useful contributions to psychological analysis, the value of his work lay almost entirely in preparing the way for the subjective idealism of Berkeley and the scepticism of Hume. He did this chiefly by emphasizing the difficulty of forming any positive conception of substance, any intelligible idea of power or causal efficacy, and any coherent theory of the apprehension of universals, as distinguished from the ideas of particular things.

6. *Subjective Idealism.*—The subjective idealism of Berkeley grew immediately out of the position of Locke;

[1] Of course, Locke owed much to Hobbes and to the Cambridge Platonists; and his general attitude of radical empiricism, which contributed so much to set the tone of subsequent British philosophy, may even be traced back to the two Bacons. But with such purely historical relations we are not here concerned.

[2] He adopted some constructive ideas from Descartes, notably the argument for the reality of the self, but without their full logical justification. On the other hand, his argument against innate ideas seems to be directed against Herbert, rather than against Descartes.

[3] This phrase is not meant to be altogether sarcastic. Locke had, in an eminent degree, the characteristic which is sometimes believed to be specially English, of caring more for truth than for consistency. One is sometimes tempted to admire this quality, in contrast with the readiness to accept the wildest paradoxes for the sake of logical consistency.

but it may also be connected pretty directly with that of Descartes. Kant, in his Refutation of Idealism, deals with the views of Descartes and Berkeley together, distinguishing their attitudes, with regard to this particular problem, as problematical and dogmatic respectively.[1] Referring back to our account of Descartes' manner of thinking of the mind and its ideas as a picture-gallery containing portraits, we may say that what Berkeley urges is that, if we only see pictures in a gallery, we have no real reason for thinking that they ever exist in any other way than in a gallery. If we did not paint them ourselves, the most reasonable supposition is that they were brought in from some other gallery, in which they were painted by a productive activity similar to that which we find in our own. The chief difficulty about this is that it does not account for those pictures that were in the gallery from the first—i.e. for the ideas of self and God—and those that represent permanent conditions of all experience, such as time, space, number, causal sequence, and other forms of relation—in general, for those fundamental determinations that are commonly referred to as categories. Berkeley was forced to deny that these are properly to be regarded as ideas at all: he describes them as Notions. We have notions, he says, of the self, of other selves, of activity, and, in general, of all modes of relation—i.e. as he explains, we know what we mean by these conceptions, though we cannot be said to picture them, and though their reality does not consist in our apprehension of them. He does not appear, however, to have sufficiently observed that, when we consider what we mean by them, we find that we mean something that is not essentially dependent on any apprehension of them, but is rather an objective condition of all experience. Number, for instance, seems clearly to apply not only to the ideas that may, in a certain sense, be said

[1] Kant's argument is more effective against Descartes than against Berkeley, with whose works he does not appear to have been very well acquainted. Dr. G. E. Moore's interesting Refutation of Idealism (*Mind*, October 1903) is directed mainly against the position of Berkeley, but is effective also against some later theories of a subjective type. Dr. Moore, however, is somewhat unfortunate in selecting cups and saucers as examples of things that exist independently of the life of spirit. These are clearly formed by conscious activity, and to serve conscious ends.

to be in an individual mind, but also to spirits, which Berkeley does not suppose to exist in that way. The same is true of time. The ideas in one mind are before or after those in another mind, to which they may be communicated, or from which they may be received ; and this relation of before and after means something which is not dependent on either of the minds between whose ideas it subsists. If Berkeley had followed out this implication of his notions, he would probably have been led to a point of view similar to that which was afterwards adopted by Kant. But his notions were an afterthought, and hence his general attitude continued to be a subjective one. He continued at least to think of the *esse* of material things as consisting simply in their *percipi*, and of the *esse* of individual minds as consisting in *percipere*. It is in this way chiefly that his idealism is distinguished from that of Malebranche and others, who recognized the objectivity of the content of our knowledge. It should be borne in mind, however, that even Berkeley distinguished between the sense in which ideas are "in the mind" and that in which the characteristics of the mind itself—e.g. its attitude of choice—may be rightly so described ; and, indeed, in acknowledging that the same idea may be transferred or communicated from one mind to another, he was almost admitting that ideas have a certain independence of the particular mind by which they are apprehended. It would seem necessary at least to think of the process of transference as distinguishable from either of the two minds with reference to which it takes place. Still, it remains true that his main position is a subjective one.[1]

[1] Sidgwick suggested that subjective idealism should be called Mentalism (*Philosophy, its Scope and Relations*, p. 60, and *The Philosophy of Kant*, p. 238). In view of the frequent confusion between different senses of Idealism, it might be well to adopt this suggestion. Caird protested vigorously many years ago (*Mind*, October 1879) against the application of the term Idealism to Berkeley's point of view. I think it must be admitted, however, that the supporters of Idealism, as well as its critics, have a share of the blame for the confusion that has resulted. It should be added that, in some of his later writings, Berkeley himself was evidently advancing towards an Idealism of a different type. The term Mentalism has recently been adopted by several writers—notably by Professor Pringle-Pattison in his book on *The Idea of God*.

7. *The Scepticism of Hume.*—The point of view of Berkeley, when not modified by his somewhat tardy and hesitating admissions, leads directly to scepticism; and this was very clearly brought out by Hume. Recurring to the Cartesian metaphor of the picture-gallery, we may say that Hume's argument was that, if we only see the pictures, the supposition that they hang in a gallery is gratuitous and unwarranted. They may be taken to be nothing more than dream-pictures; and the dreamer may be supposed to be only an aspect of the dream. His own image—a less convincing one—is that of actors on a stage. We see only the actors, and have no real ground for the supposition that the stage or theatre within which we place them is anything more than the sum of their movements. This is a *reductio ad absurdum* of the doctrine of representative ideas; and Hume was well aware that he was not propounding a positive theory, but only calling attention to a sceptical conclusion. What he essentially urged was that, according to the doctrine that was then in vogue, and which he provisionally adopted in default of a better, there could be no real knowledge of anything but a series of individual perceptions—whether the lively ones that are called impressions and beliefs, or the fainter ones that are called ideas and fancies—"succeeding one another with inconceivable rapidity, and in perpetual flux and movement." He saw, indeed, that such a view made even the appearance of definite knowledge incomprehensible; but he did not see how any better doctrine could be devised. He stated his difficulty very clearly thus: "There are two principles which I cannot render consistent; nor is it in my power to renounce either of them—viz. *that all our distinct perceptions are distinct existences*, and *that the mind never perceives any real connection among distinct existences*. Did our perceptions either inhere in something simple and individual, or did the mind perceive some real connection among them, there would be no difficulty in the case. For my part, I must plead the privilege of a sceptic, and confess, that this difficulty is too hard for my understanding. I pretend not, however, to pronounce it absolutely insuperable. Others, perhaps, or myself, upon more mature reflections, may discover some hypothesis, that will reconcile those con-

tradictions." [1] In these words he stated quite definitely the problem that was afterwards dealt with by Kant.

8. *Dualistic Realism.*—Reid, writing somewhat earlier than Kant, attempted to meet the scepticism of Hume by setting forth a new doctrine of dualistic realism, based on the denial of the theory of representative ideas. His attack on the latter doctrine was of considerable value, and anticipated some of the later criticisms to which it has been subjected; but what he had to set in its place was not very clearly explained; and some of his comments—notably those on Hume's difficulty about causation—were distinctly irrelevant. In the light of subsequent speculation it is easy to see that what he was chiefly aiming at was the affirmation of the essentially objective character of our experience. He does not seem, however, to have explained at all clearly what it is that is objectively apprehended; and his most notable disciple—Sir William Hamilton—in trying to make the position clearer, destroyed its chief value by maintaining that sensation is essentially subjective—a view by which a good deal of later psychology has been adversely affected.[2] The main result of Reid's work was to restore the dualism of Descartes and Locke, without the purely subjective conception of knowledge which was really inconsistent with the affirmation of that dualism.[3]

9. *The Critical Philosophy.*—A more hopeful method of dealing with the scepticism of Hume was introduced by Kant; but his treatment is so technical and complicated that it cannot be easily summarized without the omission of some

[1] Appendix to vol. i of *A Treatise of Human Nature.* It is for ever to be regretted that Kant seems not to have been acquainted with Hume's complete statement of his problem in this Treatise. Green's *Introduction* to Hume's *Treatise* is still the best critical account that we have of the whole movement of thought of which Hume marked the culmination. The more recent *Hume-Studien* by Professor Meinong (now republished in his *Gesammelte Abhandlungen*, vols. i and ii) may also be consulted with advantage.

[2] It is probable that Hamilton was a good deal influenced by Kant, in emphasizing the purely subjective character of sensation. Among recent psychologists, even Professor Stout seems to me to have followed them too closely in this respect.

[3] On the general significance of Reid's work, Professor Pringle-Pattison's book on *The Scottish Philosophy* should be consulted.

aspects that are of considerable importance. In the main, what he did was to bring out the significance of what Berkeley had described as Notions. He urged that we cannot, without absurdity, regard our knowledge as being confined to the separate perceptions that are apprehended by us at any particular time. We have to recognize certain fundamental orders, such as those of space, time, and causal succession, which carry us beyond our immediate data, and necessarily imply a coherent system of connections. He thus denied both the fundamental principles which Hume found it so difficult to reconcile. Unfortunately he continued to regard the immediate *data* that we apprehend by way of sensation as purely subjective. He followed Hume in beginning with what he described as a "manifold of sense," and only proceeded afterwards to introduce the various modes of connection by which the manifold is reduced to systematic order. Later writers, such as Professor Ward, have emphasized the fact that even the rudest beginnings of experience must be regarded as containing a *continuum*. Kant's method of treatment in this respect gave to his work a somewhat delusive appearance of being similar to the psychological construction of Locke.[1] Even the fundamental forms of time, space, and the categories are treated too much as belonging to the peculiar structure of the human intelligence, and so as lacking any thoroughly objective validity. This is partly corrected as he proceeds. In his Refutation of Idealism (by which he means Subjective Idealism) he urges, as we have already noticed, against both Descartes and Berkeley, that the recognition of coherent order (especially in the form of what is called substantiality) is more directly involved in the apprehension of objects distinct from the self than in the awareness of the subject; and that our knowledge of the persistent reality of the self must, consequently, be regarded as com-

[1] Even Hegel seems to have regarded the point of view of Kant as very similar to that of Locke. The essential difference between them is well explained by Caird in his *Critical Philosophy of Kant* (chapter i), in which indeed he seeks throughout to remove or minimize the apparently subjective implications in Kant's modes of statement. But he cannot be wholly defended from the charge of suggesting such implications; and indeed he showed, in the later editions of his *Critique*, that he had become conscious of this defect. See also Adamson's *Development of Modern Philosophy*, vol. i, pp. 284–6.

paratively secondary and derivative, rather than as what is most immediately apprehended. He contends, moreover, that the order which we are bound to recognize in the connection of the objects that we apprehend, is an order that can never be reduced to a completely systematic form ; and must, consequently, be treated as only "phenomenal," and distinguished from the real order, which may be supposed to belong to the relations between "things-in-themselves," and which we are led to postulate chiefly on moral grounds. But Kant's doctrine carried conviction, at least with regard to the necessity of recognizing that some kind of reality belongs to the more mediate forms of apprehension, as well as to those that are more immediate. When the significance of this is fully realized, it leads to the doctrine that may be characterized as that of epistemological realism—i.e. the doctrine that everything that we in any way cognize has a kind of reality, which is not simply to be identified with the fact that it is immediately apprehended at any particular time.

The subjectivism that continued to permeate Kant's philosophy is largely to be traced to that somewhat unfortunate process which he described as his Copernican revolution. As Professor Alexander has pointed out, it was, on the whole, rather the reverse of the revolution that Copernicus effected ; and, indeed, it was not much of a revolution at all. Copernicus substituted a heliocentric for the old geocentric reference ; whereas Kant sought to substitute an egocentric for a cosmocentric attitude. Happily he did not altogether carry out his purpose. He was more and more led to recognize an objective order—e.g. in the passage in which he states that the unity of experience is to be regarded rather as a synopsis than as a synthesis, and, still more definitely, in his refutation of subjective idealism,[1] and in most of the changes that he introduced into the later editions of his first *Critique*. But these modifications came too late to enable him to reconstruct his system ; and it remains, in consequence, little more than a splendid ruin—but the ruin out of which most of the subsequent philosophical constructions have

[1] It is to be regretted that this is not included in Professor Watson's very useful *Selections from Kant*.

been built. It is at least his merit that, if he could not quite definitely recognize an objective order, he did very fully recognize a subjective one.[1]

The view of Kant, that ultimate reality (the noumenon, or thing-in-itself) cannot be known, but only apprehended by faith and feeling, led to several fresh developments in philosophy. His doctrine of positive knowledge is contained in the earlier part of the *Critique of Pure Reason*. The later part (the Dialectic) contains the grounds for holding that ultimate reality (whether that of the self, the world, or God) is unknowable. In the *Critique of Practical Reason* he gives his exposition of the rational basis for a moral faith in the reality of the three main forms in which ultimate reality is naturally conceived. In the *Critique of Judgment* he shows how this faith is further supported by certain forms of feeling or intuition. Many of the subsequent developments of philosophy have arisen by laying special emphasis on one or other of these main aspects of the Kantian system. His more positive doctrine of knowledge has been made the basis for certain forms of Absolute Idealism. His more negative attitude towards the apprehension of ultimate reality has given rise to what is commonly described as Agnosticism. His emphasis on moral faith led to various forms of volitional theory, such as those of Fichte and Schopenhauer, and may also be regarded as furnishing the basis for Pragmatism. His emphasis on feeling or intuition [2] led, among others, to such philosophies as that of Schelling and the more recent speculations of M. Bergson. These developments can be only very briefly touched upon.[3]

10. *Agnosticism.*—The philosophical doctrine of Agnosticism is the view that absolute reality is unknowable. It has its

[1] It may be well to remark at this point that the phrase "The Understanding makes Nature, but does not create it," which is given by Green (*Prolegomena to Ethics*, § 11) as a general summary of Kant's doctrine, does not appear to have been used by Kant himself; and it must be regarded as somewhat misleading. See the Notes by Professor Sorley in *Mind*, July 1904 and April 1908.

[2] His conception of a "perceptive understanding" should also be connected with this development.

[3] Further references to Kant's philosophy will be found in several of the succeeding chapters; especially Book II, Chapters I–V, and Book III, Chapters I and III.

chief foundation in the Kantian distinction between phenomena and noumena; but, in Kant's statement, it was somewhat qualified by the recognition of the justification of a rational belief. The more modern form of Agnosticism was developed chiefly by Comte, on the one hand, and by Hamilton, Mansel, and Spencer, on the other. The last-named conceived that we can only have definite knowledge of mind in relation to matter and of matter in relation to mind; and that the dualism in which we are thus involved can only be overcome by the supposition of an Absolute beyond experience, in which the antithesis is annulled. The Absolute which is thus postulated has to be conceived as super-personal,[1] and as such it is to be regarded as worthy of worship. Some other forms of Agnosticism admit a much more complete ignorance; and indeed it would seem that, if we admit as much knowledge as is conceded by Spencer, it ought to be possible to advance somewhat farther. Perhaps the most logical form of Agnosticism is that represented by Comte and the Positivists. According to them, the attempts that men have made to understand the universe that they apprehend, fall into three main stages. We begin with the interpretation of things in an animistic way, as caused by the operation of superhuman agencies; we advance from this to an interpretation by metaphysical conception of substances or forms; and finally we learn that we are only able to study the laws or orders in which the objects of our experience occur. The view of Comte, however, like most other forms of Agnosticism, is accompanied by the recognition of an order of development in the universe that we apprehend; and the highest that we know in this order of development is found in the life and aspirations of Humanity. This, rather than an unknowable Absolute, should be taken as the object of our worship and devotion. This kind of Humanism connects somewhat closely with the more recent theory of Pragmatism.

[1] See *First Principles*, p. 109: "The choice is rather between personality and something higher." What Spencer meant by this is not very clear; but it may be interpreted in the light of the conception of the Absolute that has been developed by Mr. Bradley—though probably the association of these two writers would not be much approved by either. See also below, Book II, Chapter XI, and the Note at the end of Book III; also the concluding chapter, § 3.

11. *Pragmatism.*—The eloquent and genial writings of William James have given much currency to this point of view in recent times; and, like Agnosticism, it may be connected closely with the doctrines of Kant. The contention of Kant, that it is by a kind of moral faith that we are able to extend our justifiable beliefs beyond the region of the phenomenal, leads very naturally to the recognition that, even within that region, what we call our knowledge is largely based on faith. It is pointed out that the fundamental presuppositions on which science is based are, to a large extent, working hypotheses. Their justification lies in the fact that they enable us to deal in a connected and coherent way with objects that would otherwise present themselves as chaotic. The Pragmatists press this contention to the extent of claiming that truth means essentially what is found to work. When stated in this extreme form, the doctrine seems clearly to be erroneous. It omits to recognize the objective conditions of experience, which it is our aim, as far as possible, to ascertain. In view of what has already been urged, it seems right to maintain that we mean by truth or correctness the formation of judgments that are in accordance with this objective system. It may be admitted, however, that, in many cases, the only available test of such accordance is to be found in the smooth working of the hypotheses that we form, when applied to the interpretation of particular classes of objects. A theory that fits in with all the known facts to which it is relevant may be seriously false; it may even be, in Mr. Bradley's phrase, nothing better than "useful nonsense"; but at least it has established some claim to be provisionally accepted; and certainly a theory that does not work in this sense, has to be rejected or modified. It may be admitted also that we have some right to hope that theories or principles of action that have been found to work satisfactorily over a wide area, may turn out to be approximately or completely true. At any rate, it may certainly be granted that the pragmatists have rendered valuable service in a twofold way, both by shaking men's confidence in dogmas that are at best only working hypotheses, and by encouraging the formation of working hypotheses, even when they are somewhat speculative. Newton's saying, *hypotheses non fingo*,

has sometimes been interpreted in a wider sense than he appears to have intended, and has been used for the crushing out of speculative enterprise. For this reason William James has been not unjustly praised as a great liberator of human thought.[1]

12. *Intuitional Idealism.*—The recent writer who has laid most stress on the intuitional element in knowledge is Professor Bergson, whose views have gained wide acceptance through his eloquence, his admirable gift of lucid exposition, and his great illustrative power. In some respects he is closely related to the pragmatists. Both schools are opposed to pure "intellectualism"; but, while the pragmatists appeal against it to a kind of faith, M. Bergson appeals rather to intuition. The justification for such an appeal seems to rest mainly on the fact that intellectual activities are dependent on objective conditions, which are not apprehended by thought —at least in the narrower sense of that term. We can think about colours, or about numbers, or about knowledge itself; but the presuppositions of such thought are not reached by thinking, but by the presence of certain ultimate forms in the structure of our universe, of which even unthinking beings are more or less aware. Professor Bergson, however, as well as some others, appear to mean a good deal more than this in their criticism of the intellect. They mean, not only that intellectual activities involve reference to conditions that are not reached by thinking, but that the exercise of what Wordsworth called the "meddling intellect" tends to distort our apprehension of the structure of reality—to cause us to miss what Goethe described as the "geistige Band." It may certainly be admitted that some forms of intellectual activity do have this tendency. We do sometimes "murder to dissect." We omit important elements in particular objects—

[1] James himself put forth some very interesting speculations on the interpretation of the universe as essentially pluralistic—speculations which do not seem to have any necessary connection with pragmatism. Dr. Schiller has connected it with a wider view which he calls Humanism. But this term would seem properly to cover positivism and some types of idealism. Mr. Balfour's point of view is somewhat akin to pragmatism; but he does not appear to accept the pragmatic conception of truth. Hence his attitude is one of "philosophic doubt," modified by the recognition of "inevitable beliefs." It should be added that the pragmatism of Professor Dewey appears to be considerably different from that of William James. See Macintosh's *Problem of Knowledge*, pp. 420–1.

especially in objects that are of the nature of organic wholes —in order to concentrate our attention on special aspects. But this is a defect that thought is able to correct. Hegel sought to correct it by a Dialectic, in which the insufficiency of abstract ways of thinking is brought to light. It is true that this is a difficult process ; but it does not appear that there is any real justification for an opposition between intuition and intellectual activity.

13. *The New Realism.*—In recent times there has been a considerable group of writers [1] who have laid special stress on the objective aspects of knowledge, as distinguished from the attitude of the individual mind in apprehending its objects. As we have seen, there is apt to be a good deal of confusion with regard to this. Such terms as Sensation, Perception, Imagination, Conception, Thought, may be used either with reference to the attitude of the mind towards an object, or with reference to the object that is apprehended—with reference, as Professor Lloyd Morgan puts it, to the apprehend*ing* or the apprehend*ed*. We may say that we get a smell *by* sensation, or that a smell *is* a sensation ; that we apprehend a distant object *by* perception, or that the object thus apprehended *is* a perception ; that we follow a fairy-tale *by* imagination, or that a fairy-tale *is* an imagination ; that we are aware of a number *by* conception, or that a number *is* a conception ; that we interpret the meaning of a judgment *by* thought, or that a judgment *is* a thought. Professor Meinong has helped very much to make such distinctions clear ; and Mr. Russell, by insisting on the use of such a term as "sense-datum," instead of sensation, as well as in other ways, has rendered valuable service. Others, such as Professors Alexander and Lloyd Morgan and Dr. G. E. Moore, have also done much in the same direction. The general result is to destroy the attitude of pure subjectivism ; and this is certainly a result that is of great importance, especially in our own country, where the influence

[1] These writers do not all represent quite the same position, and it is consequently not very easy to summarize their views. The most complete indication of their general attitude is perhaps to be found in the American volume *The New Realism*, by Mr. E. B. Holt and others. The general point of view is closely connected with that of Meinong, who may almost be regarded as its founder.

of Berkeley and Hume has been very far-reaching, and often perverts speculative thought in most insidious ways. The New Realists, by insisting on the objectivity of what is apprehended, have also done much to revive Realism in its older or Platonic sense—i.e. in the sense of the recognition of the reality of universals. But they have tended to oppose themselves to other forms of "idealism," as well as to those that are of a subjective type. Even this is not without justification; for the taint of subjectivity runs through a good many idealistic theories. Yet the insistence on the reality of universals brings the New Realism pretty close to such an idealism as that of Plato; and there are some modern theories, commonly described as idealistic, that are not far removed from this.[1] These we must now very briefly refer to.

14. *Absolute Idealism or Cosmism.*—Absolute Idealism is best represented by Hegel; but there is some ambiguity in his position, which makes it liable to different interpretations. Hence anything that is said about it here can only be taken as my individual way of regarding it. I interpret it as a restatement, in a more systematic form, and with reference to the developments of modern thought, of the position that was so brilliantly sketched and, in its main features, so profoundly anticipated by Plato. Thus conceived it is not, simply as a doctrine of knowledge, very far removed from the attitude of the New Realists, at least as expounded by some of its interpreters. It differs chiefly in its more decided emphasis on the reality of universals, in its attempt to arrange these in a systematic order, and in its conviction that, when they are so arranged, it becomes apparent that the ultimate interpretation of reality must be spiritual. This is shown by bringing out the implications of the more material conceptions, and attempting to show that they lead us inevitably to those that have a more spiritual character. The significance of this is perhaps, to some extent, concealed by the characterization of the fundamental concept as thought-

[1] Royce has urged that the point of view of the Vedantists is, in one sense, the extreme opposite of Realism. See *The World and the Individual*, vol. i, Lecture IV. But even the Vedantists, if I understand them rightly, were Realists in the sense referred to above. They were not subjectivists, but upholders of the Absolute One. Even what they call the world of Maya, though characterized as illusory, is regarded a sessentially objective. See Note at the end of Book III.

determinations (*Denkbestimmungen*). This suggests a subjective interpretation; but I understand Hegel to use the term Thought in an essentially objective sense. What he calls the Subjective Notion is only one of the stages in the interpretation of the Universe. The significance of the position that he takes up will, it is hoped, become more apparent as we proceed.

The point of view of Mr. Bradley is to some extent akin to that of Hegel; but he makes a certain opposition between Appearance and Reality, which is rather nearer to the point of view of Kant; and, by regarding the ultimate apprehension of reality as akin to feeling, rather than to thought, he brings himself into close relation to certain forms of what we have described as intuitional idealism. The chief value of his work, however, lies rather in the searching dialectic that he applies to particular conceptions than in his constructive results. It should be added that his opposition between Appearance and Reality is considerably softened by the recognition of Degrees of Reality, and by the contention that "Reality lives in its Appearances." Other writers, who are largely in sympathy with the Hegelian position, have either interpreted it in ways that are essentially different from that which is here indicated, or have modified it in certain important respects. But these we cannot here consider.

15. *General Summary.*—In the account of different views that has now been given, I have made considerable use of the terms Realism and Idealism. This I have done, as I have previously indicated, somewhat under protest. They are terms that are in common use, but do not very well express the differences that are really fundamental; and they suggest a general antithesis that can hardly be said to exist. If the term Spiritualism were used, instead of Idealism, it would be more apparent that Realism is not its proper antithesis. Realism is not necessarily Materialism. More often those who are called Realists are Dualists. Sometimes they are essentially Agnostics. Sometimes they are hardly distinguishable from Idealists, except by their tendency towards Pluralism. Their most general characteristic is their opposition to subjectivism; but this they share with many who are called

Idealists. No doubt the reason why the term Idealism continues to be used, rather than Spiritualism, is that the latter term has been appropriated to a very different meaning. On the whole, it seems to be hardly possible to find terms that are in all respects suitable to express the most fundamental differences; but it certainly seems to me that the term "Cosmism" serves the purpose sufficiently well. "A thoroughgoing Idealism," as Caird maintains,[1] "will not fear to admit the reality of that which is other than mind, and even, in a sense, diametrically opposed to it; for it rests on a perception that these opposites are yet necessarily related, and that both are different and correlated aspects of one whole." It seems clear that the emphasis here is on the conception of the unity of the Cosmos. Compare also the statement in Adamson's *Development of Modern Philosophy*, vol. ii, pp. 17-18. Surely the treatment of the relation between mind and body in Dr. Bosanquet's *Principle of Individuality and Value*, Lecture V, ought to make it clear that those who are commonly called idealists do not necessarily disregard or minimize the material aspect of reality.

16. *Transition to the Following Chapter.*—It has, of course, not been my object, in this brief sketch, to deal definitely with the special views of individual writers,[2] but rather to indicate the general characteristics of different attitudes towards the fundamental problems of knowledge, in order to make more apparent the significance of the position that has been led up to in the foregoing chapters. What is chiefly important is to emphasize the objectivity of knowledge, on the one hand; and, on the other hand, the fact that it is not simply the apprehension of individual objects, but of objects that fall into connected orders. What we have now to do is to notice more definitely the chief orders, or modes of systematic unity, that it is necessary to recognize in the apprehension of our Universe. The most fundamental of these are generally referred to as Categories; and it is to the consideration of these that we now pass.

[1] *The Evolution of Theology in the Greek Philosophers*, vol. ii, p. 27.

[2] Mr. L. J. Walker's book on *Theories of Knowledge* may be referred to with advantage, especially on Pragmatism and Realism. The recent book on *The Problem of Knowledge*, by Professor D. C. Macintosh, is more comprehensive.

BOOK II

SPECIAL ASPECTS OF THE UNIVERSE AS KNOWN—FROM NATURE TO SPIRIT

CHAPTER I

CATEGORIES

1. *General Meaning of Categories.*—We have seen that knowledge means correct belief, together with its grounds; and that belief means the reference of a judgment to its place in some order. We have now to inquire more definitely what kinds of assertion are made in judgments. Obviously there are considerable differences in the assertions that may be made. If we take the case of dog, for instance, we may assert that it is an animal, that it is large or small, that it is black or some other colour, that it is beautiful or ugly, that it is whole, containing distinguishable parts, that it is an organic being subject to growth and decay, that it resembles some other beings and is very different from others, that it exists at a certain time and place, that it moves or is at rest, that it is conscious, that it barks and bites, that it stands upright or is lying down, that it may be struck and injured, that it may be angry or pleased, that it may possess a bone and be possessed by a master, that it is descended from some other dogs and may be the ancestor of others, that it is a good watchdog, and so forth. Aristotle, reflecting on such assertions, enumerated what he called the categories—i.e. the various kinds of assertion that may be made about any object. Other lists of categories have since been made, but not always from the same point of view as that adopted by Aristotle. Categories are sometimes understood to mean distinct kinds or classes of things. It was in this sense that the term was used by J. S. Mill. Kant used it in a sense more nearly approximating to that of Aristotle, but excluding certain kinds of relation that may be asserted, such as those of space and time. I intend to use it in a sense that is more nearly that of Aristotle than that of

Mill ; but, before proceeding further, it may be well to notice some of the most important ways in which categories have been dealt with. Two distinguishable types of treatment seem to be specially important, that which concerns itself primarily with special aspects of our universe, and that which is concerned rather with the universe as a whole.

The general considerations about knowledge and reality which have engaged our attention in the last Book have led us to the conception of the Universe that we know, or partly know, as an objective order, or at least a combination of objective orders that more or less definitely cohere in a single whole. We have thus to think of it as a many in one ; and, if we are to form any intelligible view of it, we must try to see, as clearly as we may, what is to be understood both by its manifoldness and by its unity. There are thus two main problems before us—the survey of the manifoldness of the known world and the attempt to discover in what sense it forms a unity. Both these problems are very difficult, and, in order to deal with them at all, we must try to limit their scope. Obviously, we cannot deal with all the aspects of the world that we know ; and it is perhaps equally obvious that we cannot hope to determine, with any completeness, how its unity is to be characterized. But reflection seems to show that the most fundamental distinctions and relations among the objects that we know can be singled out. Even to do this, however, is rather more than can be attempted here with any thoroughness. What we may hope to do is to indicate the chief ways in which attempts in this direction have been made, and then to try to deal with those aspects of the general problem that appear to be of most fundamental importance. This problem is that which has been commonly described as an inquiry into categories ; and categories may be considered either as conceptions that can be applied to particular objects or as conceptions by which the general structure of the Universe as a whole may be characterized. Different writers have tended to devote their attention mainly to one or other of these ways of regarding categories. We can only very briefly indicate some of the chief methods that have been adopted.

On the whole, it seems true to say that the earliest attempts

were directed mainly to the interpretation of the Universe as a whole. This is not so unnatural as it may at first appear. Special aspects tend to be confusing, and have to wait for the laborious investigations of many inquirers devoting their attention to particular details. The more pressing need is for some general point of view from which the whole may be regarded. There is necessarily some crudity in the earliest attempts to secure this; though often the crudity is due more to the lack of an adequate language for technical expression than to lack of penetration in the underlying ideas. It is much easier to underrate than to overrate the contributions of the Pythagoreans, Heraclitus, Parmenides, and others to the solution of this problem. But it may suffice for our purpose to begin with a reference to Plato.

2. *Plato's Ideas or Forms.*—It is not obvious that Plato's conception of Ideas or Forms, which appears to have been suggested by the Pythagorean doctrine of Numbers or mathematical determinations, is always clear and consistent. Attempts have been made to distinguish different stages in the development of his conception, and also to distinguish those phases of the general theory that are purely Platonic from those that are rather to be referred to Socrates; but with these problems, which are still highly controversial, we need not here concern ourselves.[1] It is enough for our present purpose to notice that the Forms on which he appears to lay special emphasis are such as Being, Unity, Plurality, Likeness, Rest, Motion, Life, Mind, Beauty, Goodness. These are evidently conceptions of a very general kind that may be predicated of objects, and consequently categories in the sense in which that term is here understood. But Plato does not seem to have made any attempt to give a complete enumeration of them. His interest in them was mainly that of discovering their place in ultimate reality, and the sense in which they could be regarded as capable of being combined with one another and entering into the composition of particular things. It is noteworthy that he omits purely sensible qualities, such as colours, apparently regarding these

[1] For the latest views about Plato, reference should be made to Professor Burnet's *Greek Philosophy* (Thales to Plato), Part I, Book III.

as relatively unreal. Much of his work is dialectical, bringing out the difficulties that are involved in the application of particular conceptions, such as unity and plurality, to individual objects ; and showing how reflection on these difficulties leads us to modify our first view of the conceptions themselves. On the whole, it is clear that he does not quite provide what is wanted for our present purpose. But his dialectical method has been of great service in subsequent speculations ; in some of his later dialogues the dialectical method of Hegel is pretty definitely anticipated ; and the special emphasis that he laid on the Form of Good, as furnishing the ultimate interpretation of the others, retains a high degree of interest, and will have to be referred to again at a later stage.[1]

3. *Aristotle's Categories.*—Aristotle seems to have been the first who attempted to make a definite list of categories. In drawing up this list, he set aside his more purely metaphysical conceptions, such as Form and Matter, Potentiality and Actuality, and his four Causes.[2] These would apply to all objects, regarded in certain aspects, and are consequently not distinct assertions that can be made about particular objects. The categories that he enumerated were Substance, Quantity, Quality, Relation, Time, Place, Position, Possession, Action, Passion. When we are dealing with any particular object, we have first to inquire *what* it is. This would be answered by naming the species to which it belongs ; and this Aristotle called its *οὐσία* or Substance, which is thus to be taken as the first of the categories.[3] This use of the term "Substance" is somewhat peculiar. "Kind" would perhaps better express what is intended. The other categories give the properties and accidents of the object in question. They have been a good deal criticized on the ground of redundancy. "Relation" might be taken to include several of the others. On the other hand, if we admit that it is desirable to enumerate different kinds of relation, it might

[1] Especially in Book III, Chapter IV.

[2] See Zeller's *Aristotle*, vol. i, chapter vi, and Mr. Joseph's *Introduction to Logic*, chapter iii.

[3] Aristotle distinguished two senses of *οὐσία*, applying it both to universals and to individual things ; but it is not necessary for our present purpose to take particular account of this distinction.

be urged that we ought also to enumerate different kinds of quantity and quality. It is noteworthy that the list omits such characteristics as beauty and goodness, unless these may be held to be covered by "quality." A difficulty presents itself also in determining what may properly be regarded as an object—i.e. as a logical subject to which predicates may be attached. It would seem that the subject spoken about might be a quality or relation, and might have other qualities, quantities, or relations ascribed to it; and so with some of the other categories. A colour, for instance, might be said to be pure, beautiful, intense, and so forth. One of Aristotle's objections to Plato seems to depend on a failure to recognize this. He objects to the treatment of goodness as a single fundamental conception, on the ground that it may be predicated in any of the categories.[1] A substance, a quantity, a quality, or a relation may be good; and so with the other categories. This objection would apply to many of the Platonic Forms, such as Being, Unity, Likeness, etc. But this seems only to mean that one conception may be predicated of another; and there does not appear to be any reason against this. There may be more or less of a quality and of an action. On the whole, it may be doubted whether Aristotle's list of categories has much permanent value, though it was no doubt useful as a first attempt.

4. *Kant's Categories.*—Kant criticized the categories of Aristotle as being redundant and not arranged on any definite principle, and also on some other grounds that are less convincing. He took, however, as the basis for his own list another aspect of Aristotle's philosophy—viz. his analysis of the logical judgment, as developed in more modern Formal Logic. He was thus led to recognize Quantity, Quality, Relation, and Modality as his chief classes; and under each of these he distinguished three categories, making a list of twelve in all. He regarded these as the modes in which a finite or discursive understanding introduces unity into the disconnected manifold of sense-material. Time and space he excluded, as being the fundamental forms of sense-perception, rather than modes of thought. He conceived, however, that

[1] *Nicomachean Ethics*, Book I, chapter vi.

the categories have to be schematized—i.e. interpreted in terms of space and time, especially the latter—before they can be used in dealing with the material that is supplied by the senses. This schematization he considered to be the work of the constructive imagination. The categories of quantity become schematized as Number—the kind of magnitude that is reached by the successive counting of units; and those of quality as Degree or intensive magnitude. Thus, in effect, both these sets of categories come to be regarded as quantitative; and Kant characterizes them both as mathematical categories. Quality, in the proper sense, is not recognized as a category at all, but treated as one of the characteristics of our sense-material. Causation (which is derived from the form of the hypothetical judgment—if A, then B) becomes schematized as a uniform mode of sequence. The others we need not here notice; but these three are of some importance for our purpose, as we shall have occasion to refer to them in the following chapters.[1]

It seems clear that Kant's method of deriving the categories is highly artificial. The antithesis between sense and thought, on which it is based, is open to serious objection; and the attempt to bridge the gulf between them by the constructive imagination only serves to betray the weakness of the antithesis. He describes the imagination as a blind faculty working in the depths of the soul,[2] and meditating between sense and thought. Imagination is, in fact, the Cinderella of the Kantian philosophy, doing all the real work in obscurity, while her more dignified sisters—Perception and Conception—stand aloof in helpless idleness. He fails to recognize the objective order in our universe, which underlies

[1] Kant's treatment of reciprocal action as connected with the disjunctive judgment has already been noticed in Book I, Chapter V, § 8.

[2] Compare this with Hume's "magical faculty," referred to above in Book I, Chapter IX, § 2; and on the place of imagination in Kant's system, see Caird's *Philosophy of Kant*, Book I, chapter v. The recognition of imagination as anticipating the work of conception points to the conclusion that categories may be regarded as being implied in the apprehension of objects by animals, as well as by the thinking consciousness. But it remains true that it is only in conception that the categories as such are apprehended. On the sense in which categories are involved in the animal consciousness, reference may be made to Stout's *Manual of Psychology*, Book III, Part II, chapter i, and to Lloyd Morgan's *Animal Life and Intelligence*, chapter ix.

alike all our apprehensions by sense-perception, imagination, and thought; and hence he is perpetually led into unreal antitheses, which he can only solve by artificial modes of mediation.

If these objections are sound, it is not surprising that his list of categories is very imperfect. The omission of quality, in the proper sense of the word, must surely be regarded as a grave defect. Number and Degree seem to have as good a right to be regarded as fundamental conceptions as any of those that he describes as categories.[1] Such conceptions as Value and End, Beauty and Organic Unity, are dealt with by Kant in his *Critiques* of Practical Reason and Judgment, but are not regarded as categories. There are grounds for these distinctions in the Kantian system; but there do not appear to be any in the nature of things.

5. *Hegel's Dialectic.*—Hegel's point of view is to a considerable extent similar to that of Plato, whose dialectic method he seeks to develop farther. Plato applied his dialectic in the main (except in some of his later dialogues) for the purpose of leading up to certain fundamental conceptions. Hegel, in his Logic, rather assumes that we know certain fundamental conceptions; and seeks mainly to show how, by a dialectical method, we may pass from one conception to another, and so arrange them all in a definite order. His interest in the categories is rather as modes of characterizing the Absolute, or the universe as a whole, than as predicates of particular objects. Several philosophers have tried to define reality in general by some one conception. Parmenides, for instance, took Being, the Pythagoreans Number (understood in a somewhat wide sense for mathematical determinations), Spinoza Substance, and some others Mechanical Action. Hegel's main object seems to have been to show that no one of these conceptions, taken by itself, can be regarded as an adequate characterization of the whole. He shows this by urging that each of these conceptions implies another which is distinct from it and, to some extent, opposed to it. By

[1] See, on this point, Caird's *Critical Philosophy of Kant*, Book I, chapter v, and compare what is said below in Chapter III, § 4. Professor Alexander (*Mind*, January 1913, p. 20) defends Kant's view but on grounds that seem to me insufficient.

beginning with the simplest of them—mere existence—we may thus be led, by observing their implications, to more and more complex conceptions, and at last to one—that of self-revealing Spirit—which is sufficiently comprehensive to define the whole. This is evidently a very large undertaking ; and, whatever view we may take of the success with which it has been carried out, it can hardly be denied that it is one of the most remarkable achievements in the whole history of philosophy. To attempt to examine it in detail would be far beyond our present scope ; but we may notice briefly some general criticisms that have been made upon it.

One of the most interesting criticisms is that of Dr. B. Croce,[1] who objects to the emphasis that is laid by Hegel on antithesis as the instrument for unfolding the implications of conceptions. He points out that, in many cases, it is the counterpart, rather than the opposite, that is implied in the meaning of a particular conception.[2] This appears to be true. Being may be said to imply Non-being ; Order may be said to imply Disorder ; in the sense that no definite meaning can be assigned to these conceptions without reference to their opposites. On the other hand, Unity implies Plurality, which can hardly be described as its opposite. Still less can Priority be held to be the opposite of Posteriority, which it implies. Dr. McTaggart, in his very acute and sympathetic exposition of Hegel's dialectic, has noted that, as the process advances, the aspect of simple opposition becomes less and less pronounced.[3] It is probably true that Hegel laid undue stress on negativity as the chief factor in the development of implications. But, as Dr. McTaggart urges, this does not appear to invalidate his general method. The essential point is that our fundamental conceptions, when clearly defined, are seen to carry implications that lead us beyond themselves. It is important to remember that it was not his object to throw discredit on any fundamental concep-

[1] *What is Living and what is Dead in the Philosophy of Hegel*, especially chapter v.

[2] Similar objections have often been urged from a less sympathetic point of view. See, for instance, Hobhouse's *Theory of Knowledge*, pp. 200–2.

[3] *Studies in the Hegelian Dialectic*, especially chapter iv. See also his *Commentary on Hegel's Logic*, where the statements in the earlier work are somewhat modified.

tions, but only to bring out their inadequacy as complete characterizations of the Universe.[1] He did not reject any of the fundamental conceptions, but only sought to confine them to their proper places within the system of reality.

Again, Hegel's system has often been criticized—e.g. by William James and Dr. Ward—as being too purely intellectual. It is said to be a Panlogism. Even Mr. Bradley referred to the "unearthly ballet of bloodless categories."[2] Categories must of course, in a sense, be bloodless. They are pure universals; and life comes into them only when they are embodied in individual objects. But the embodiment of the universals is described by Hegel in his Philosophies of Nature and Spirit. The former of these seems highly unsatisfactory; but the Philosophy of Spirit at least has been found enlightening even by many who attach little importance to the Logic.

I believe, however, that what is meant by some of those who complain of Hegel's method as being too purely intellectual, is that he does not give a sufficiently definite place to Feeling and Value. Mr. Bradley considers that the ultimate interpretation of the Universe can only be apprehended by a kind of Feeling. Dr. McTaggart agrees with this at least to the extent of representing Feeling, especially the feeling of Love, as the most ultimate conception that can be used in the characterization of the Absolute.[3] Dr. Bosanquet also, in his exposition of the conception of the Absolute,[4] has laid special emphasis on the idea of Value, which certainly is closely connected with Feeling. It is possible that Hegel did not sufficiently recognize this—at least if we consider only the purely logical part of his work. Certainly, if this conception were made more prominent, it would bring the

[1] It should be borne in mind that conceptions, not in themselves contradictory, may become contradictory when regarded as characterizations of the whole. This appears to be Hegel's point. He is regarding them primarily as definitions of the Absolute.

[2] *Principles of Logic*, p. 533. The whole passage in which this phrase occurs is highly significant.

[3] See *Studies in the Hegelian Dialectic*, chapter vi, *Studies in Hegelian Cosmology*, chapter ix, and *A Commentary on Hegel's Logic*, p. 310.

[4] See his two volumes on *The Principle of Individuality and Value* and *The Value and Destiny of the Individual*.

Hegelian system more fully into harmony with that of Plato, in which the conception of Good holds the highest place.

In any case, it is pretty clear that it would be a mistake to regard Hegel's treatment of the categories as a closed system, into which no modifications can be introduced. The categories are not to be thought of as unfolding themselves in a purely mechanical fashion.[1] Their evolution is rather, in M. Bergson's phrase, a "creative evolution." They are unfolded by the discovery of fresh implications; and the discovery of these depends on the fact that the whole is a connected order, in which each element implies many others —perhaps, in the end, all others. Hegel himself did not rigidly adhere to one unchangeable arrangement in his exposition of the categories; but it is perhaps true that his general method gives the impression of a more mechanical movement than he really intended. It is probably the case, as Green said, that "it will all have to be done over again." It would indeed be surprising if one man, however great his genius, had succeeded all at once in achieving finality in so vast an undertaking.

6. *More Recent Treatments of the Categories.*—Since the time of Hegel no one has attempted any exposition of the categories that is comparable with his in systematic thoroughness and completeness. Mill's account of categories as kinds, which has already been referred to, does not appear to be of sufficient importance to require any further notice. A few words ought, however, to be given to Mr. Bradley's method of treatment, which is probably the most remarkable since that of Hegel.

His method, like that of Hegel, is dialectical; but he has not attempted to deal systematically with all the categories, and his results are, in general, more purely negative than those of Hegel. His dialectic may, in this respect, be compared with that of Zeno in ancient times. His object, as I understand it, is to show the imperfections that attach to all fundamental conceptions, except that of the Absolute, and the unsatisfactoriness of all attempts at a purely intellectual

[1] See, on this point, the remarks by W. Wallace in *Lectures and Essays on Natural Theology and Ethics*, p. 549.

construction. Ultimate consistency is to be found only in the Absolute, which could be supposed to be apprehended only by Feeling or Intuition. This rather negative conclusion is somewhat modified by the view that "Reality lives in its Appearances," and that, though Appearance cannot be made self-consistent, a certain degree of reality may yet be ascribed to it. Hence, instead of saying, with Hegel, that "what is actual is rational," he prefers to state his conviction that what is most spiritual is most real. His arguments in support of this position, if not wholly convincing, are certainly urged with a great deal of force. This much, I think, may be conceded, that the attempt to apply ultimate conceptions in the interpretation of experience becomes increasingly difficult as we advance from the simpler conceptions to those that are more complex. Being is a very simple conception; and, as it is applicable to everything to which any kind of existence or reality can be ascribed, it does not present much difficulty. But, just for this reason, it throws no real light on any particular object. Number is a more complex conception, and it is more difficult to see in what ways it can be rightly applied. On the other hand, when it is rightly applied, it may enable us to discover a good deal about the objects to which it is applied.[1] Spiritual Unity is a conception that is still more complex and difficult to apply properly; but, if we could apply it rightly, it would perhaps give us the key to the general structure of the universe. I think it is true to say that conceptions of this kind are so difficult, that we have to acknowledge that we never have any full apprehension of their significance. And

[1] The extent to which it can do this was no doubt grossly exaggerated by the Pythagoreans; and perhaps it tends also to be a good deal exaggerated in the statements of some of our modern mathematical physicists—such as that which is quoted from Lord Kelvin by M. L. Poincaré (*The New Physics*, p. 19): "I often say that if you can measure that of which you are speaking and express it by a number you know something of your subject; but if you cannot measure it nor express it by a number, your knowledge is of a sorry kind. . . . You are hardly advanced towards science, whatever the subject may be." Another of Lord Kelvin's sayings that has been quoted is that "mathematics is the only true metaphysics." Great is the daring of mathematicians! For further observations on the extent to which purely mathematical determinations may be used in the interpretation of reality, see below, Chapter III, § 3, Chapter V, § 8, Book III, Chapter III, §§ 5, 6, 8, and Chapter IV, § 2. See also Macintosh's *Problem of Knowledge*, p. 464.

it may be true that the kind of knowledge that would enable us to apprehend the full meaning of such conceptions would be best characterized as Intuition, or perhaps even as Feeling. I am not sure that even Hegel would have denied this. It does not appear, however, that the recognition of this need interfere with the definite application of other conceptions to objects that are appropriate to them, or need be taken to imply that such objects are properly to be called unreal. But this is a point on which something further will have to be stated in a later chapter.

As we have already noticed, the conception of Value is closely connected with that of Feeling. Values are primarily felt; or, at least, feeling may be said to anticipate the judgment of value;[1] and it is doubtful whether what has ultimate value can be fully apprehended at all. This also will have to be considered later. The emphasis laid on Value by Dr. Bosanquet has already been noticed. Lotze also attached very special importance to it;[2] and it has a prominent place in the discussion of fundamental conceptions by Meinong and his school, as well as by several other writers.

What Meinong calls *Gegenstandstheorie* has a considerable bearing on the discovery of ultimate conceptions. It may be regarded, to some extent, as an attempt to discover categories in the sense understood by Mill—i.e. the different kinds of objects; but it is a much more elaborate and satisfactory attempt; and when such an attempt is thoroughly carried out, it is not far removed from other ways of regarding the categories. Driesch's *Ordnungslehre* is an attempt of a somewhat similar kind, and has the merit of giving special prominence to the important conception of Order.

7. *Summary about Categories.*—It appears from this general survey that there are different ways in which fundamental categories may be conceived, or at least different ways in which the study of them may be approached. The simplest

[1] See below, Chapter VIII, §§ 1–3.

[2] For some criticism of his use of it, reference may be made to Jones's *Philosophy of Lotze*, especially chapter ii. See also the article on Lotze by Dr. J. T. Merz in the *Encyclopædia Britannica*. Among recent writers who have attached special importance to the conception of value, Professors Eucken and Höffding may be mentioned.

way would seem to be that from which Aristotle set out, according to which they are regarded primarily as predicates that can be attached to distinguishable objects. The categories that present themselves as most definitely applicable, from this point of view, are those of Kind, Quality, and Quantity; for, though the consideration of these involves comparison of one object with others, yet the comparison is primarily with the view of distinction rather than of connection. From these categories we may then proceed to those that involve more direct and positive modes of relation. The chief of these would seem to be spatial, temporal, and causal relations. These are somewhat secondary in the Aristotelian mode of treatment, but become fundamental in the Kantian system. Causation is, however, the one that stands out as specially calling for consideration; since time and space may be treated rather as modes of unity that are applied to the universe as a whole—except in so far as they are merely regarded as particular forms of magnitude. Next to these we have to notice categories which may be characterized rather as modes of unity than as modes of relation—i.e. ways in which complex objects may be characterized. Organic unity, for instance, and the kind of unity that belongs to conscious life are obvious instances of this. These might no doubt be described as Kinds; but this would only be a first attempt to characterize them. They have a certain complexity which has to be specially considered. Aristotle separated the consideration of this from the treatment of the categories, regarding it rather as belonging to the problem of fundamental forms; just as he dealt with the general subject of causation also as not properly belonging to the study of categories. This is largely a question of methodology; and it must suffice for our present purpose to urge that all the conceptions here referred to appear to be of fundamental importance. Whether they are rightly to be called categories or not, would depend on the exact interpretation that is to be given to that term; and it is hardly possible to decide that question satisfactorily until we have given some attention to the significance of these fundamental conceptions. Finally, the consideration of modes of unity leads us to the problem with regard to the kind of unity that can be ascribed to the

universe as a whole. It seems true to say that it was primarily with this question that Plato and Hegel were concerned. The consideration of the universe as a whole may lead to some modification of the way in which the characterization of particular parts of it is to be interpreted. Hegel, in particular, in urging the insufficiency of special categories, as applied to the whole, is at the same time criticizing their application to special aspects of the whole. He does not deny, however, that those that cannot properly be applied to the whole (the conception of a "whole," indeed, being itself one of these) may yet be applied to special aspects of the universe.

Now, if it were the object of the present work to construct a complete system of metaphysics, it would evidently be necessary to discuss fully all the fundamental conceptions that can be applied either to particular objects as such, to the relations between objects, to their modes of unity, and to the whole within which they are included. But that is not our design. The attempt to discuss and arrange the categories has to be regarded by us here as one of those special sciences that we have to take account of, in the light of what has been brought out by those who have made it their special study; not as a subject that we can hope to deal with thoroughly in this work. I conceive that philosophy, like other forms of human knowledge, is built up by a co-operative process. What is being attempted here is a general survey of results, rather than the thorough discussion of any single question. Reference must be made to other works for the complete examination and ordering of the categories, just as it must with regard to particular points in psychology and other special sciences. Some further observations, however, may here be in place with regard to the method in which it seems most suitable for us to consider it here.

8. *Plan of the Succeeding Chapters.*—From all that has now been stated, it is evident that the discussion of categories is a very difficult subject, which could only be satisfactorily dealt with in a treatise devoted entirely to itself. For our present purpose, it does not appear to be necessary to attempt anything quite so elaborate. It must at least, for the present,

suffice to call attention to some fundamental conceptions that are recognized, in some form or other, in almost all lists of categories, and that are generally acknowledged to be among the most important. Certain fundamental conceptions have already been considered, such as Order, Truth, Reality, Possibility, and the like. These are conceptions of a very general kind. What we have now to notice are certain determinations of a more specific kind. As it was determinations of this kind that Aristotle described as categories, we may approach the subject in a manner somewhat similar to that which he appears to have adopted. Some comparatively simple considerations may enable us to single out the conceptions that are most important from this point of view; and we may then try to deal with them in a more detailed way.

We may begin with the predication of Universals. "This is a dog" is a judgment referring a particular object to a general class. It is what Aristotle would call a predication of substance. "This is a colour," "This is a pain," "This is a judgment," "This is a nation," are judgments of the same type; and such judgments may be taken as the beginning of definite predication. In Mr. Bradley's language, they refer a "what" to a "that." Following Aristotle, we may proceed next to judgments of quantity: "This dog is large," "This colour is bright," "This pain is intense," "This judgment is particular," "This nation is small." Quantity, however, is of different types. We may distinguish number, degree, and extensive and protensive magnitude. Quality also may be taken to cover several different things. In a wide sense, even quantitative determinations are often called qualities. In a somewhat narrower sense, it may be taken to include distinct kinds and also the smaller shades of difference that exist within kinds. It is probably best to confine it to the latter. Illustrations of qualitative judgments would be such as the following: "This dog is ugly," "This colour is pink," "This pain is disagreeable," "This judgment is hypothetical," "This nation is courageous." Next we come to relation, which covers an even greater variety of modes of predication. The following may be taken as instances: "This dog is chasing a cat," "This colour is reflected from a precious stone," "This pain

is caused by a bruise," "This judgment is based upon a series of experiments," "This nation is struggling for independence." The characteristic of these is that they express some mode of determining or being determined—i.e. they contain some conception of ground or cause. The relation, however, might also be that of inclusion within some group or unity—e.g. "This dog belongs to a pack of hounds," "This colour is only found in stones of a particular kind," "This pain is one of the symptoms of a dangerous disease," "This judgment is one of a series connected with the properties of gases," "This nation is one of the Allies."

Reflecting on such instances, I am led to believe that predication may be said to consist either in (*a*) simply referring an object to a kind or universal, or (*b*) ascribing to it more or less of some characteristic, or (*c*) noting some characteristic which distinguishes it from other objects of the same kind, or (*d*) connecting it with other objects by some relation of a more or less definitely causal kind, or (*e*) grouping it with some other objects in a way that is not explicitly causal. Hence I take as the most fundamental categories for our present purpose, Kind, Quality, Quantity, Causation, Systematic Unity.

It may be objected to this at once that it omits one of the large classes given by Kant—viz. that of Modality. But Modality seems to belong either to the copula of a judgment, or to some condition or hypothesis on which it depends, rather than to its predicate.[1] It may be illustrated by the following instances: "This dog is probably fierce," "This colour might be called purple," "This pain may be lasting," "This judgment must be false," "This nation is certainly enterprising." Now, the meaning of possibility, probability, necessity, certainty, and the like, has already been sufficiently indicated.[2] They do not appear to be properly regarded as categories, in the sense in which we are here interpreting that term.

But it may be objected further that our categories do not include some of those that were previously referred to, such as rest and motion, standing and lying, possessing and

[1] See Book I, Chapter V, § 8.
[2] Especially in Book I, Chapter VIII, § 7.

being possessed, goodness, beauty, value, and possibly some others, such as change and growth, and even being itself. To this I should answer that goodness, beauty, and the more general conception of value may, in a wide sense, be regarded as qualities ; that rest and motion, standing and lying, express complex spatial relations, and are sufficiently covered by the general conception of space (which appears to be a mode of extensive magnitude), together with that of grouping ; that change and growth involve causation, together with quality ; that possessing and being possessed may be regarded as modes of grouping ; that being, as has been already noted, means reference to some specific order, and has been already dealt with.

Now, kinds may, in a wide sense, be included under quality ; and, in so far as they serve as a basis of classification, they may be included under the general conception of grouping. Hence I take as the fundamental categories Qualitative Conceptions, Quantitative Conceptions, Causation, and Systematic Unity. All of these, however, include conceptions of very diverse kinds. These we must now endeavour to deal with in order. The justification for this particular selection, if it can be justified, will, it is hoped, become more apparent in the course of their treatment than it could well be made by any further discussion of a general kind at this stage. But I have thought it well to indicate beforehand the more general aspects of the subject, and to acknowledge that its more thorough treatment is being evaded. The fundamental conceptions involved in the structure of our universe have to be gradually spelt out, just as scholars have discovered the alphabet in the Hieroglyphics and other obscure writings ; and it is probably well to recognize that we are not yet in possession of the complete alphabet.[1]

[1] The article by Adamson on "Categories" in the *Encyclopædia Britannica* may be consulted with advantage on this subject.

CHAPTER II

QUALITATIVE CONCEPTIONS

1. *Quality and Kind.*—The objects that we apprehend are very different in kind. Colours, sounds, smells, etc., have indeed in common the general mode in which they are apprehended, the physical conditions on which they depend, and certain characteristics of intensity, duration, and feeling tone. Otherwise they are quite different; and it does not seem possible to give any account of the ways in which they differ. They do not form members in a continuous order, with reference to their place in which they could be arranged and described. The differences between complex objects—material things, plants, animals, human beings, social unities, and the like—are not of quite so sharp a kind. They can be analysed; and some of the parts into which they can be resolved are identical in nature. Yet it does not seem possible to give an account of the life and growth of organisms by means of any principles that are found in purely material objects; nor can consciousness be described in any terms that relate to the unconscious. The transition from the merely animal to the human may be more continuous; but even in this case there is a gulf which it is not easy to bridge. Hence we have to recognize that there are differences in the world that we know that are of such a nature that it is difficult, if not impossible, to express them in any common terms. We have to say that some objects have characteristics which other objects lack; and that no account of the objects that lack these characteristics would yield any definite anticipation of the characteristics that are missing.

Other qualities, however, are not so sharply marked off. White is very different from black; but, by taking the series

of greys, we may pass from white to black without any appreciable break. Similarly, red is very different from blue; but we can pass from one to the other, through the various shades of yellow and green, without coming upon any gulf. Even in this case, however, the progress is not quite straightforward. There seems to be a change of direction when we come to yellow. If we did not already know what green and blue are, we should not be able to anticipate them from our knowledge of red and yellow. But, so long as we are proceeding in a single direction, it seems possible to anticipate the different shades. Even Hume, who maintained that all perceptions are distinct, admitted that it might be possible to anticipate different shades of colour.[1] In this case there is a definite and almost continuous order.

Reflection on such cases seems to show that we may make a distinction between differences of kind and differences that are purely qualitative. It might, no doubt, be urged that the latter partake of the nature of quantity. We may say that a colour is more or less red or more or less blue; and thus it might be said that the difference is rather one of degree than of quality. It may even be contended that a shade of colour that lies between red and yellow should be regarded as a compound, containing certain degrees of red and certain degrees of yellow. But it is not altogether easy to justify such a contention. All shades of colour seem to present themselves to us as simple. If we knew no other colours than pink, green, purple, and grey, it would hardly occur to us that they are not simple colours. If they are not simple, white, black, red, and blue, which are the most obviously simple, may not really be unanalysable. At any rate, the possibility of continuous transition seems to differentiate such distinctions from that between distinct kinds of sense material. We cannot make any similar transition from scarlet to the sound of a trumpet or the smell of a rose. It must be admitted, however, that, even in some cases in which the difference appears to be one of quality rather than of kind, a continuous transition is not easy. In passing from a sweet taste to a sour one, or from a hot temperature to a cold one, we do not seem to pass through a continuous

[1] See below, § 5, and Chapter III, § 4.

series of positive experiences, but rather to descend to a zero-point, in which there is no specific experience of taste or temperature, and then to advance from zero in a new direction. Hence it might be urged that we class these experiences together as tastes and temperatures respectively, not because they are members of continuous scales, but only because they are apprehended in similar ways, and have similar physical conditions. Thus there is some ground for doubting whether all distinctions between sensible qualities may not be essentially differences of kind. This doubt might, however, be equally well turned in the opposite direction. It might be urged that, with fuller knowledge, the differences between the sensible qualities that we apprehend might no longer appear to be abrupt. It is obvious that there is no reason for supposing that the sensible qualities that we apprehend are the only ones that might be apprehended by means of more fully developed organs; and, if we had a more complete apprehension of sensible qualities, they might very well present themselves to us as a more continuous order. In the meantime, it seems best to recognize that some of the sensible qualities that we apprehend form continuous orders, while others are abruptly marked off from one another.[1]

When we pass from sensible qualities to objects of a more complex kind, we encounter somewhat similar problems. The distinction between a Shakespeare and a Caliban seems to be essentially qualitative, in the sense in which the term is here employed. Great as the difference is, there appears to be nothing that the former knows and feels which might not be known and felt by the latter; and there are many grades of human life between the two, differing from one another in ways that are almost imperceptible. When, on the other hand, we pass from human life to that of the lower animals, the difference strikes us as being rather one of kind. A parrot can be taught to utter words, but not to use them as instruments of thought. A monkey can imitate almost any human action, but it does not appear that it can carry on any process of reasoning. A plant, so far as we know, does not even feel. A rock does not even grow.

[1] Mill's treatment of differences of kind is still worth referring to. See his *System of Logic*, Book I, chapter vii, § 4, and Book III, chapter xiv.

Grains of sand do not even cohere together. Yet the doctrine of evolution has gone some way to break down distinctions that were once thought to be abrupt ; and further knowledge might very well enable us to see that the transitions from one type to another are more continuous than is even now commonly supposed.

This is a problem of very fundamental importance, and we shall have to refer to it again later. The abrupt separation of kinds is the principal obstacle in the way of regarding the world that we know as a complete order. But with that problem we are not at present concerned.

2. *Quality and Substance.*—Qualities (using the term in its widest sense) are commonly referred to substances. Colours are referred to things in space, growth to organic beings, psychical conditions to conscious centres, and so on. According to Descartes, there are two fundamental types of substance to which qualities may be referred, the material (i.e. the spatial) and the conscious. Berkeley, on the other hand, contended that all qualities might simply be referred to conscious centres. Hume denied the legitimacy of the reference to substance at all. Much turns on what is to be understood by a substance. Some further reference will have to be made to this at a later stage ; [1] but a few observations seem to be called for at this point.

It is very obvious that there is some sense in which qualities may be referred to things.[2] A fire is a source of colour and warmth ; and we apprehend the fire as existing at a certain place and time, and standing in various relations to surrounding objects. This may be expressed by saying, in the phraseology previously adopted, that the spatial and temporal orders intersect ; and that at one of their points of intersection, the qualitative orders of colour and temperature also meet. If we simply understand by a substance such a focusing of the content of various orders, it is then

[1] See Chapter V, § 5.

[2] Anaxagoras seems to have been the first who definitely laid emphasis on qualities, as distinguished from substances. See Burnet's *Early Greek Philosophy*, pp. 304-8. If it is right to interpret him in this way, it is probable that this aspect of his philosophy marked as great an advance as his introduction of the conception of order or his somewhat vague reference to νοῦς.

to be regarded as a special mode of unity ; and it is in that connection that it will have to be considered. If it is taken to mean more than this, it is certainly not easy to see what more it can be supposed to mean. The notion of substance in any other sense was sufficiently exploded by Locke. Kant indeed reintroduced it in the sense of persistence in the midst of change ; and in that sense also we shall have to consider it later. As regards the view of Berkeley, it is no doubt true that qualities are apprehended at conscious centres ; and that distinguishable modes of apprehension have to be recognized at those centres ; and also that there is a certain persistence throughout change at these centres. This will have to be dealt with at a later stage in the discussion of consciousness and personality. Substantiality of a *res cogitans*, in the sense understood by Descartes and Berkeley, seems illegitimate, and was sufficiently refuted by Hume and Kant. What we have to recognize is that there is an order of apprehension which intersects the more objective orders. For the present, at least, this appears to be a sufficient account of the way in which qualities are referred to things and to minds.

3. *Primary and Secondary Qualities.*—Attempts have frequently been made to distinguish between the primary and secondary qualities that may be referred to particular objects. The primary qualities are generally understood to be mainly spatial, modes of extension and movement ; and consequently they do not at present concern us.[1] The secondary qualities are such as colour, sound, smell, taste, temperature, and the like. These are conceived as being subjective, in a sense in which the primary are not. How far this view is justified, we shall have occasion to consider at a later stage. In the meantime, we may notice that the distinction turns

[1] See Book III, Chapter I, § 9. Hamilton recognized also secundo-primary qualities, using this term as an equivalent for what Locke called Powers. See Note D in his edition of Reid's *Works*. These are the properties by which one body affects another, as when wax is melted by a flame. The consideration of these seems to belong properly to causation. The use of the term Qualities as including primary, secundo-primary, secondary, and tertiary characteristics of objects is misleading. It would be better to call them Attributes or Properties. But this use of the term Qualities is perhaps too well established to be readily abandoned.

largely on the relative permanence of the one kind of quality and the relative variability of the other. The spatial extent of the objects that we apprehend, changes much less readily than their colour or temperature. Tastes, smells, and sounds are, on the whole, still less permanent characteristics of complex objects. Colours vary to a considerable extent with different persons, different conditions of light, different points of view from which the objects are regarded, and other circumstances. Hence they have been supposed to be purely subjective. This view has been recently met by the supposition that all the colours that can under any circumstances be apprehended in connection with any object may be actually contained in it—and that it is only due to subjective limitations that they are not always apprehended. In what sense any qualities can be properly said to be contained in an object, we shall have to consider in a later chapter.[1] In the meantime, it may suffice to note that the method of interpretation here suggested, makes any such supposition unnecessary. If the presence of characteristics in an object means only that certain orders intersect at a particular point, it is obvious that there may be great variations in the relative permanence of any particular association of qualities.

4. *Tertiary Qualities.*—It has recently been suggested that there are other qualities connected with particular objects which present themselves as even more subjective than those that are called secondary, and which might consequently be fittingly described as tertiary. These are the qualities that are, more or less definitely, connected with the fact of valuation, pleasantness, beauty, goodness, and the like. A fire, for instance, may have a definite position in space, which it maintains for a considerable time. The characteristics involved directly in that spatial position would be its primary qualities. Its temperature and the brightness of its flames would be regarded as secondary. The pleasantness of its warmth, the beauty of its form, its exhilarating power, and its value for various human purposes, would constitute its tertiary qualities. It is certainly more difficult to regard such characteristics as inhering in the fire than it is in the case

[1] Chapter V.

of either the primary or the secondary qualities ; but it is not more difficult to interpret them in the way that has already been suggested. But the discussion of this subject belongs properly to the part in which we have to consider the significance of various modes of unity.[1]

5. *Qualitative Continuity.*—What it is chiefly important to emphasize at this point with regard to quality is its continuity. It is in the case of colour that this characteristic is specially apparent ; and it may be well to refer here to Hume's treatment of this subject. Hume's recognition of the continuity of colours is specially remarkable, inasmuch as the fact forced itself upon his attention in direct opposition to his general theory. His general view, as we have already noticed, was that all our perceptions are separate and distinct ; and that we cannot form any idea except on the basis of some direct impression, in which it is presented to us in a more lively form. Yet he admits that this is not the case with respect to colour ; and it is worth while to notice the exact terms of his admission.

"There is, however," he says,[2] "one contradictory phenomenon, which may prove, that 'tis not absolutely impossible for ideas to go before their correspondent impressions. I believe it will readily be allowed that the several distinct ideas of colours, which enter by the eyes, or those of sounds, which are conveyed by the hearing, are really different from each other, tho' at the same time resembling. Now if this be true of different colours, it must be no less so of the different shades of the same colour, that each of them produces a distinct idea, independent of the rest. For if this should be denied, 'tis possible, by the continual gradation of shades, to run a colour insensibly into what is most remote from it ; and if you will not allow any of the means to be different, you cannot without absurdity deny the extremes to be the same. Suppose therefore a person to have enjoyed his sight for thirty years, and to have become perfectly well acquainted with colours of all kinds, excepting one particular shade of blue, for instance, which it never has been his

[1] Chapter V. On tertiary qualities, see also Chapter VIII, § 10.
[2] *Treatise of Human Nature*, Book I, Part I, chapter i.

fortune to meet with. Let all the different shades of that colour, except that single one, be placed before him, descending gradually from the deepest to the lightest; 'tis plain, that he will perceive a blank, where that shade is wanting, and will be sensible that there is a greater distance in that place between the contiguous colours, than in any other. Now I ask, whether 'tis possible for him, from his own imagination, to supply this deficiency, and raise up to himself the idea of that particular shade, tho' it had never been conveyed to him by his senses? I believe there are few but will be of opinion that he can; and this may serve as a proof, that the simple ideas are not always derived from the correspondent impressions, tho' the instance is so particular and singular, that 'tis scarce worth our observing, and does not merit that for it alone we should alter our general maxim."

If Hume had not been an inveterate sceptic, believing that no theory could be made wholly satisfactory, it is evident that he could not have treated this contradiction so lightly. For further reflection would surely have convinced him that the instance is not altogether "particular and singular"; and that, even if it were, it would still be necessary to reconcile it with the general theory. But, though the fact to which Hume refers is no doubt most apparent in the case of colours, it seems clear that similar remarks might be made about sounds, tastes, degrees of heat or pain, and probably about all our sense experiences. It might perhaps be urged that it relates, in reality, rather to degrees than to qualities; and this is a point that will have to be further considered. But at least, on the face of it, it seems to concern quality. If it does not, this would mean that the distinction between qualities and kinds disappears. In any case, the continuity of degrees would seem to be as difficult to account for, on Hume's principles, as the continuity of qualities.

In connection with this subject, there are some further observations that it is important to make at this point. It can hardly be doubted that the treatment of sensible qualities in general has suffered considerably from the fact that they may be regarded from very different points of view; and this is perhaps more emphatically true of colours than

of any others. From the point of view of physics, they are naturally considered with reference to the motions with which they are connected, and on which their apprehension is normally dependent. It was thus that they were regarded by Newton and by the supporters of the more modern doctrine of undulations. Physiologists, on the other hand, such as Hering, naturally look at them rather from the point of view of the structure of the eye and the nervous system, with which their apprehension is still more universally connected. Painters, again, have some tendency to think of them in connection with particular pigments and other physical objects with which they are associated. It is only the psychologist, it would seem, who is directly concerned with colour as such, in the form in which we actually apprehend it. But psychologists have too often been content to deal with the views that are put forward by the representatives of other sciences; or at least not to make much effort to distinguish clearly between the different ways in which they may be regarded. If we consider colours (including white, black, and grey) simply as they are directly presented, it seems clear that they form a connected system, capable of being fully represented as a cone—or perhaps rather as a slightly irregular pyramid. The theory of colours that was put forward by Goethe, and in the main adopted by Hegel,[1] was at least partly an attempt to bring out the relations of colours simply as such; but their polemic against other methods of treatment seems to have been due to an imperfect recognition of the different ways in which colours may be considered; and their own treatment appears to suffer from the introduction of some irrelevant material. Their main contention, however, that white and black are simple colours, and that all others may be placed in definite relations between them, appears to be sound. As, however, the question of degree has to be dealt with in connection with this, it will be well to reserve the further consideration of it for the next chapter.

Remarks of a somewhat similar kind might be made about other sensible qualities; but we are not here concerned with the detailed treatment of them. Colour has only

[1] Goethe wrote pretty extensively on *Farbenlehre*. Hegel's treatment is to be found in his *Natur-philosophie*, Zweiter Abschnitt.

been selected as an illustration of what is meant by qualitative continuity, and by a qualitative system. It may suffice to add here that the tendency to exclude secondary and tertiary qualities from the objective system, and to treat them as merely subjective, is one of the circumstances that have tended to make a good deal of science and philosophy send a chill to men's hearts, and that have led people to say that "all charms fly at the mere touch of cold philosophy." It seems to ask us to think of a universe that is essentially without warmth or colour or beauty. As Dr. Bosanquet says,[1] "If the world apart from knowledge has no secondary qualities, it has hardly anything of what we care for. It is not recognizable as our world at all." But there is no real reason for supposing that secondary and tertiary qualities have a less real place in the structure of the universe than those that are called primary, though it may be somewhat less true to refer them to individual objects, and though their existence may imply more directly that of sentient beings. It is not a question of more or less reality, but rather of the exact place of particular aspects within the whole.[2] "Natur hat weder Kern noch Schale": all its aspects are real, when seen in their proper place.[3]

[1] *Logic*, vol. ii, p. 308. Compare also what is said by Professor Pringle-Pattison in *The Idea of God*, pp. 126–7.

[2] See Chapter V, § 5, Chapter VIII, § 10, and Book III, Chapter I, § 9.

[3] It will be seen that my main object throughout has been to emphasize qualities *as such*, as distinguished from their physical conditions on the one hand and the conditions of their apprehension by an individual consciousness on the other. In the case of such qualities as colours it is not easy to make this distinction. We are so much accustomed to the study of their physical and physiological conditions and of the way in which individual minds apprehend them, that we do not readily attend to the qualities as such. I consider it to be one of the chief services that have been rendered by the New Realists, that they have helped to make these distinctions clear. The recent discussions on sensible qualities in the Aristotelian Society (*Proceedings*, vol. xvii), though somewhat inconclusive, may be worth referring to in this connection.

CHAPTER III

QUANTITATIVE CONCEPTIONS

1. *General Conception of Quantity.*—The general conception of quantity appears to be most simply expressed by the terms More and Less. It thus implies comparison, and suggests the limits that are expressed by Most and Least. In some cases, however, the Most is indeterminate, and may even be regarded as positively infinite. The Least may always be characterized as Zero. Even the "least of the apostles" is a greater apostle than one who is not an apostle at all; and so even the least magnitude of any kind is greater than zero; so that zero may always be regarded as the absolutely least. Taking zero as our starting-point, however, there appear to be several different ways in which objects may be more than one another. When we are concerned with objects of the same kind, and that do not present any obvious points of difference, quantity becomes simply a matter of numbering. One is more than zero, and we may advance indefinitely from one by successive additions of unity. In the case of objects that are qualitatively different, another variety of more and less may be introduced. One colour may be more red than another, and colours may be arranged in a definite order on this basis. The zero point would be found in a colour that had no perceptible trace of redness, and from this there would be a gradual advance to pure red. In this case the quantitative scale would appear to have two ends: it proceeds from zero to a definite type. This kind of more and less may be called qualitative magnitude. Again, a red may be more or less bright; and a sound of a specific quality may be more or less loud. Here the difference is one of degree; and this kind of more and less may be called intensive magnitude. In this case there does not appear to be any definitely assignable limit to the

advance that may be made. Besides these, there appear to be other two kinds of magnitude, which are called extensive and protensive ; but there is somewhat more doubt in these cases as to whether they are properly to be regarded as distinct kinds of magnitude. Some general remarks seem to be called for here on all these varieties, or apparent varieties, of quantity.

2. *Numerical Magnitude.*—Number, as has been already indicated, seems to connect primarily with the fact that a Universal is applicable to a multitude of particulars. It is, indeed, not necessarily the case that such a multitude of particulars should be discoverable. Such conceptions as God, the Universe, a perfect Cosmos, Space, Time, may only be applicable to single individual objects. Some conceptions also, such as that of a perfect being, or that of the snakes in Ireland or the nightingales in Wales, may not be applicable to any particular thing. Zero and unity are, however, numbers ; and the belief that there is any definite limitation in the number of objects to which a conception is applicable has to be supported by grounds. We may at least say that it is seldom or never the case that any general conception implies directly a limitation to a single object. Considered purely in itself, it nearly always suggests at least the possibility of a class ; and, so far as that class is regarded as being determined purely by the Universal in question, it is a class of homogeneous objects. It may be urged, as it has been by Leibniz and others, that individual objects are never absolutely homogeneous. The leaves in a forest, the sheep in a flock, even the most minute constituents of material things, may all have their individual differences. But, at any rate, such differences may, for many purposes, be regarded as negligible. Even human beings may, in certain circumstances, be taken simply as *capite censi*. They are then merely counted. This appears to be the simplest way in which quantity can enter in. Its lowest limit is zero. A possible class may have no members. If "there is none righteous," the conception of a class of righteous men is still possible. If there is no such thing as a perfect Cosmos or a perfect Chaos, we may still think of such a conception.

If there is no God, we may still understand what we mean by God. Or, again, there may be only one God, one Cosmos, one Chaos, one righteous man. When a conception is qualitative it may, from the nature of the conception, be limited to one, as "the brightest of the stars," "the last of the Romans," "the middle course," "the supreme power," "the centre of the Solar System"; but these imply a number of parts or members in the classes that are referred to. In general, all our conceptions suggest the possibility of an indefinite number of objects. Numerical magnitude consequently presents itself as applicable to every kind of object. Hence it is tempting to take number, as the Pythagorean did, as the most fundamental of all determinations. Even in modern times knowledge is commonly regarded as being exact only when it can be expressed numerically. The attempt to apply numerical determinations indiscriminately may, however, lead to serious error or to speculations of a highly problematical character. It is apt to lead, for instance, to the attempt to reduce other kinds of quantity to purely numerical magnitude. This we shall have to notice more definitely in the succeeding sections. It is apt also to lead to the supposition that all the characteristics of number can be applied to the objects that are numbered. When, for instance, we are considering any number, without special reference to the nature of the object with which we are dealing, it is always possible to add one or to subtract one. It is convenient, for some purposes, to regard such subtraction as being possible even when the number is zero; and thus zero comes to be regarded as not necessarily the smallest number. This way of thinking has significance owing to the fact that some conceptions can be regarded as the opposites of others. The lowest temperature, for instance, is not the absence of warmth but the presence of cold. This may be expressed by a negative quantity. Similarly, one direction may be regarded as negative with reference to the opposite direction. This is a convenient device in mathematics, by which distinctions that are not in themselves numerical may be treated numerically. The fact that it is possible to increase numbers indefinitely leads also to the conception of an infinite number; and this can be applied conveniently to objects

that cannot be numbered at all. If, for instance, it is not possible to make any transition from a plant to an animal, we may say that the one is infinitely removed from the other. Or, again, if in the motion from one point to another, it is not possible to state the number of possible intermediate positions, it is convenient to say that there is an infinite number of them. Such mathematical conventions may become seriously misleading when they are interpreted as being directly applicable to particular objects. A more obvious case is that of division. Any number may be regarded as divisible into parts, and the process of subdivision may be carried on indefinitely. Sometimes this process is applicable to particular objects, but in other cases it is not. A flock of 20 sheep can be divided into two parts, each consisting of 10. Each of these parts may be divided into other two, each consisting of 5. If we try to carry the process farther, the parts would cease to be composed entirely of sheep, and eventually would cease to be so composed at all. Hence it is necessary to exercise some caution in applying numerical determinations to concrete objects. We are not entitled to assume that all the characteristics that are applicable to pure number are applicable, without qualification, to all the objects that can be numbered. The bearing of this may become more apparent as we proceed.[1]

3. *Numerical Expressions.*—If it is right to regard numbers as referring primarily to the individuals in a class or group, it would seem that what are called the cardinal

[1] The definition of number that is given by Frege and Mr. Russell—"the class of all classes that are similar to a given class" ("similar" being taken to mean a one-one relation between the members of a class)—is perhaps open to some of the rather too sweeping objections that have been urged by Messrs. Richardson and Landis (*Numbers, Variables, and Mr. Russell's Philosophy*, pp. 5–14); but it has at least the merit of calling attention at once to the objectivity of numbers, and to the fact that they cannot be ascribed to objects as such, but only to objects viewed from certain standpoints. It thus enables us to remove finally the difficulties that were raised by Plato's preliminary dialectic. I doubt, however, whether, properly speaking, number can be defined, except by indicating its relations to other fundamental concepts. Whether this is to be done by such a method as Hegel's dialectic, or in some other way, I prefer to leave undetermined. For a general statement of Mr. Russell's view of number, see his book on *Our Knowledge of the External World.* For some criticism of his views, reference may be made to the book mentioned above, and also to Driesch's *Ordnungslehre*, p. 97.

numbers are the only numbers, in the most definite sense of the term. It has been customary, however, to apply the term, not merely to the system that serves for the enumeration of the members of a class, but also to that which serves for their arrangement, as first, second, third, etc. Thus we get what are called the ordinal numbers, in which zero is omitted. Fractions are also frequently referred to as numbers; and this is a very natural extension of the meaning of the term, as some groups contain fragments. It might be less misleading, however, to call them numerical expressions, rather than numbers; and the same term would seem to be applicable to particular arrangements of numbers, as in various forms of series, and to expressions that represent special ways of treating numbers, such as powers, roots, etc. Still more does it seem desirable to describe what are called "transfinite numbers" as numerical expressions, rather than as numbers in the stricter sense. It is obvious that, for certain mathematical purposes, it is often desirable, and even necessary, to deal with numbers in ways that have no definite reference to numerable things. A simple illustration is found in the computation of averages. If, for instance, there are seven members on a Committee, and the attendances at six successive meetings are 6, 4, 3, 3, 2 respectively, it is convenient to say that the average number present was $3\frac{1}{2}$; though of course there never could be a time at which $3\frac{1}{2}$ members were present. Such expressions have a real significance, though they are not directly applicable to any group of existing things. The same appears to be true of many of the expressions that are used by mathematicians; and serious errors may be committed in the attempt to apply such expressions to existent objects. Some further reference will have to be made to this [1] in considering the way in which the conception of infinity has been used by some recent mathematicians. It is of course for mathematicians to consider what methods of treating numbers are most suitable for their purposes; but the question always remains, how such methods of treatment apply to particular objects; and here those who are not specialists in mathematics have some right to form a judgment. The protests of Berkeley

[1] In Book III, Chapter III.

and Hume against hasty attempts to give metaphysical significance to mathematical processes may not have been wholly wise ; but at least such attempts require to be somewhat carefully watched. It is at least noteworthy that so eminent a mathematician as M. Poincaré regarded some of the recent ventures of mathematicians in this direction with considerable suspicion.[1]

It is important to bear in mind, however, that nothing that is here stated affects the general truth, that the system of numbers has objective reality ; and that the relations that can be discovered within it, are valid with reference to all objects to which they can properly be applied. There have, indeed, been very few philosophers who have seriously questioned this. According to Berkeley's view of number,[2] it is perhaps true that it would only be applicable to "ideas," not to "spirits" or "relations." Hume's theory also makes it difficult to establish the objective validity of number.[3] Mill, again, did certainly maintain that there might be some world in which it would not be true that $2 + 2 = 4$. Of course there is a sense in which this may be maintained. Even in our own world, two things combined with other two may yield a result that is very different from two pairs in separation—e.g. when two pairs of men co-operate in action, or when there is a case of chemical combination, or even of marriage ; and it is perhaps abstractly conceivable that there might be a world in which every synthesis of numerable objects—even when it was only a mental synthesis—gave rise to such, or to still more remarkable, complications. In such a world, the counting of objects might be wholly useless. But it would still remain true that, with reference simply to number as such, the relation in question holds good ; only it would be impossible to apply it in any direct way to objects, so as to yield any useful information—at least until some definite law governing the complications could be discovered. In general, it seems to be true, as has been said,[4] that "mathematical symbols depend for their meaning

[1] See, for instance, his book on *Science and Method*, II, iii.

[2] See *Principles of Human Knowledge*, § 12. Fraser called attention to this difficulty in a note to his *Selections from Berkeley*, 5th edition, p. 41.

[3] See Green's *Introduction*, §§ 156–8.

[4] *The Metaphysics of Nature*, by Professor Carveth Read, p. 305.

upon what is being reasoned about." They "economize" thought; but they have to be interpreted by thinking.

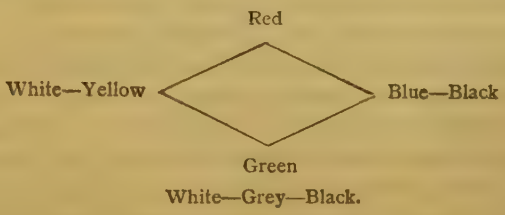
Mr. Russell—whose references to Kant are seldom very happy—has contended that the Kantian theory of number makes it purely subjective. "It might happen," he says,[1] "if Kant is right, that to-morrow our nature would so change as to make two and two become five. This possibility seems never to have occurred to him." But surely such an interpretation of the Kantian doctrine is a very gross misrepresentation. According to Kant, number is the schema of the category of quantity, and is valid in all cases in which categories are applied to a sensuous material. It is not dependent on our nature, but on the nature of synthesis. The distinction that Kant draws in this case between the schema and the category is open to question; but that does not affect the present point, and we need not discuss it. What seems clear is that, according to Kant, numerical relations are valid wherever they can be applied. He does, indeed, think that there may be modes of intelligence that do not and cannot apply them. And this is probably true. A bird seems to recognize some difference between one egg and a larger number, and certainly between one egg and none; but there is very little reason for supposing that it discovers the difference by counting. Similarly, Kant conceived that an intuitive intelligence might apprehend all reality, without ever requiring to count it, or to apply any other category or schema; and indeed he seems to have thought that ultimate reality must be of such a kind that no categories could properly be applied to it. But this does not make them any the less valid where they are applicable; nor does it allow of any variability in the relations that they contain, such as would permit $2 + 2$ ever to become $= 5$. Mr. Russell seems to have failed to distinguish between the special nature of an individual and the general nature of a synthetic intelligence. I admit, however, that the Kantian doctrine is open to criticisms of a different kind.[2]

[1] *The Problems of Philosophy*, p. 135.

[2] It seems to be true, for instance, that number as such can be considered apart from the act of counting. On this, I think, Mr. Russell is right. See *Our Knowledge of the External World*, pp. 187–9.

4. *Qualitative Magnitude.*—The conception of a definite quality, such as redness, sweetness, beauty, wisdom, and the like, is not only applicable to a number of objects, which may be more or less, but also admits of more or less in approximation to the type. Pure redness seems to be a quite definite quality, but we seldom see a red that is not somewhat yellowish or whitish, or that in some other way falls short of the pure type. Similarly, sweetness is seldom quite pure ; absolute beauty is an ideal after which artists strive in vain ; and perfect wisdom hardly seems to be attainable by man. But there appears to be a quite definite meaning in the perfection at which we aim in all these cases ; it is not indefinitely remote, like the end that may be said to be implied in the successive addition of numbers. Perfection may even be said to be implied, as Descartes urged (and, indeed, as Plato urged before him), in any kind of imperfection that we definitely recognize. Now, it may be urged that the kind of more and less that is involved in this case is capable of a certain numerical determination. Between a pure red and the complete absence of redness, it is possible to insert a number of cases in which redness is more or less present : the same may be true in the case of pure wisdom and absolute folly, and in other cases of qualitative distinctions. But it does not appear to be possible to regard the gradations in this advance from zero to a certain type as additions of units. If it were simply this, it would be possible to go on adding units after perfection had been achieved. It would be more plausible to urge that, when a definite quality is present at all, it is present completely ; and that imperfection means only the admixture of something different. Every red, it might be urged, is pure in itself ; but sometimes it is mixed with yellow or other colours. So also sweetness is sometimes mixed with bitterness or sourness or saltness or with qualities of smell or temperature or pressure ; and wisdom may be mixed with folly, and beauty with ugliness. It would be difficult, however, to maintain this in all cases of approximation to a type. If a straight line be taken as such a type, a crooked line might be said to be straight in all its distinguishable parts ; but the parts are not all in the same direction. Hence it is partly straight and

partly not. But a curve may approximate more or less to straightness, without being straight in any of its parts. Similarly, yellow appears to be closer to red than blue is ; and yet it hardly seems to be the case that a pure yellow contains any degree of redness. Perhaps we ought to distinguish in this case between a red that is not pure red and a colour that is not red at all and yet approximates to red. So also a man may be more or less rational, while an animal which cannot be said to be rational at all may yet approximate more closely to rationality than another. It is not altogether easy to determine how such facts are to be interpreted. In the case of colours, for instance, it might be contended that the approximation of red to yellow means that they both belong to the lighter end of the colour scale, while blue belongs to the darker end. It might be urged that red and yellow contain an element of whiteness, and that blue contains an element of blackness. According to the theory of colour which is specially associated with the name of Goethe, all colours are to be regarded as intermediate between white and black. As we have already indicated, there seems to be a sense in which this is true ; but it is obvious that they cannot be regarded simply as combinations of white and black. There are qualitative differences, as well as differences in degree. It would seem at least that a red and blue (or perhaps green) element has to be recognized. Perhaps the fundamental colours might be arranged in some such order as this :—



However the scale may be simplified, it would seem that at least four distinct qualities have to be recognized ; and that other shades of colour involve certain approximations to those. Hence I am inclined to think that there really is such a thing as a qualitative more or less in this case. And something of

the same sort seems to hold in other cases. But I admit that it is open to some doubt.

The term "Degree" is often used with reference to qualitative magnitude, though it seems to be rather more appropriate to that which is properly intensive. Degrees of truth or correctness appear to mean approximations to truth or correctness; and degrees of reality or actuality, in the only sense in which such an expression is intelligible, seem to mean approximations to reality or actuality; though perhaps the expression is sometimes used to refer rather to distinguishable senses, in which reality or actuality may be spoken of, or to more or less completeness in its apprehension.

5. *Intensive Magnitude.*—Degree is more properly used with reference to more or less of intensive magnitude. This kind of magnitude is less open to dispute than qualitative magnitude. It differs from the latter in having no definite limit at the upper end of the scale. There are of course limits to the degrees of heat and cold, brightness of colours, loudness of sound, intensity of pleasure and pain, etc., that we are capable of experiencing; but there does not appear to be any point in the increase of such intensities at which it could be said that more is inconceivable. In the case of pleasure, indeed, this may be doubtful. There is perhaps such a thing as complete satisfaction. Perhaps, indeed, differences of pleasantness and unpleasantness should be regarded as rather qualitative than intensive. This is a question that we may have a later opportunity of considering.

It has sometimes been contended that differences of degree can be regarded as reducible to numerical magnitude. Even Kant, after emphasizing the distinction, seems to have admitted that such a reduction is possible. In a certain sense, no doubt, it is. The number of distinguishable degrees between one intensity and another can be counted; but it does not appear to be the case that these differences can properly be treated as units. A bright light does not consist of a certain number of dim ones, though the *sources* of such light (so many candles, etc.) may be counted. This is a question of some importance with regard to the calculability of pleasures; but this is a special problem which it may be well to post-

pone for the present.[1] The interpretation of Weber's law given by Meinong,[2] which appears to be the most satisfactory interpretation that has been given of it, calls attention to the essential difference between intensive and extensive magnitude. Sometimes, it is true, a magnitude may be regarded in either way. A crowd of people may be regarded either as a certain number or as a unity having a certain intensity. When it is regarded as a number the addition of 10 to a group of 1,000 is the same increment as the addition of 10 to a group of 100. When it is regarded as a single whole the increment in the former case is only one-tenth of what it is in the latter. A crowd viewed as a sum of units is essentially a different object from a crowd viewed as an intensive whole.

6. *Extensive Magnitude.*—The illustration that has just been given enables us to see that extensive magnitude (i.e. side-by-side-ness) may be regarded numerically or intensively. But in itself it appears to be distinguishable from either. A number of peas in a row may be counted ; but the fact that they are in a row is not revealed by the counting of them. They might be successive, instead of side by side. A line, again, may be regarded as intensive ; but the stretching of the line in a particular direction is distinct from its intensive magnitude. A bar of iron might be cold at one end and hot at the other ; and have a continuous succession

[1] It may be well to note here, however, that this question is very much affected by the distinction previously drawn between pleasant sensation and liking. Pleasant sensation seems to have intensive magnitude, like other sensations. Liking, on the other hand, is a mode of valuation ; and values can be calculated. When Dr. Rashdall urges that feeling is, in this respect, different from temperature, it seems clear that it is the fact of liking to which he is referring. See his *Theory of Good and Evil*, vol. ii, especially p. 27. We may *like* one pleasant experience twice as well as another ; but it does not follow that, simply as pleasant experience, it can be said to be twice as great as the other. Our likings are not necessarily dependent on degree of pleasantness. I think similar remarks apply to Dr. McTaggart's treatment of this subject in his *Studies in Hegelian Cosmology*. Mr. Russell, in his *Principles of Mathematics* (p. 177), has, I think, indicated the only sense in which feeling-tone can be measured ; but, as he says, it has "no practical importance." See also below, Chapter VIII, § 3.

[2] *Ueber die Bedeutung des Weberschen Gesetzes*—one of the finest of his writings (republished in his *Gesammelte Abhandlungen*, vol. ii). His main ideas have been adopted by Professor Stout in his *Manual of Psychology*, Book II, chapter vii.

of temperatures, increasing gradually from the first end to the second. The magnitudes of the temperatures would be intensive, but their arrangement along the bar would be extensive. Degrees of merit, in like manner, are intensive; but a list of people arranged in order of merit is extensive. If they were arranged alphabetically, the order might be different, while the number would be the same. Yet in both cases the order has a quantitative aspect, since there is more or less of distance between the members that are contained in it.

Side-by-side-ness is generally thought of in connection with what is called space, which is commonly thought of as a three-dimensional form within which all physical objects may be placed. But it should be noted that we are not at present concerned with this particular form. Bohemia has, for the geographer, a particular place within this form. Shakespeare's Bohemia in the *Winter's Tale*, with its sea-coast, is evidently not the Bohemia known to the geographer; but it also has extensive magnitude; and so has the world that Alice discovered "through the looking-glass." It may be also that objects have a certain arrangement in a fourth dimension of space. This we shall have occasion to notice later.[1] All that we are at present concerned with is distance in a side-by-side arrangement. There may be more or less of this, and so it seems to be a special kind of magnitude.

7. *Protensive Magnitude.*—Similar remarks may be made about the relation of before and after, which also involves a kind of distance. Here, again, we are not to think of the continuous order of time, in which events are dated. The letters of the alphabet are arranged in an order of before and after. So are the propositions in a chain of reasoning. So are the persons in an arrangement of ceremonial precedence. But such objects have no definite dates. Nor has a fairy-tale of events that happened "once upon a time." But the events have a protensive order, which is different from the order of side-by-side-ness, but resembles the latter in involving the element of distance, which is its quantitative aspect.

[1] Book III, Chapter I, § 6.

Protensive magnitude has sometimes been specially connected with number. In the act of counting we take objects one after the other ; and, even apart from the act of counting, the numbers, like the letters of the alphabet, are naturally regarded as a successive series. But the magnitude of numbers does not appear to be successive. All magnitudes may be regarded as successive, if zero be taken as the starting-point ; and, if we count the successive steps, we are using numbers as ordinal. But the magnitude of numbers has no reference to the order in which they are counted. Counting is a subjective process, in which there is the relation of before and after ; but the things that are enumerated may be homogeneous units (or units capable of being regarded as homogeneous) forming a sum, or stages of approximation to a definite quality, or degrees of intensity, or objects that are side by side or before and after. These modes of more and less are themselves five in number, and we have taken them in a successive order ; but they do not appear to be necessarily arranged in this order.

8. *Comparative View of Modes of Magnitude.*—It would seem, then, that there are five distinct modes of more and less ; and there do not appear to be any others. Now, on comparing these different modes of Magnitude, we find certain points of resemblance and contrast. Extensive and protensive magnitude have a certain similarity, while numerical and qualitative magnitude are somewhat sharply contrasted. Intensive magnitude may in some respects be regarded as a link between numerical and qualitative magnitude. It may be well here to begin by bringing out the points of contrast between numerical and qualitative magnitude.

The most obvious difference consists in the homogeneity of the increments in the case of number and the heterogeneity in the case of quality. Another difference is the indefinite extensibility of the numerical series on its upper side, in contrast with the definite limitation of the qualitative scale at both ends. On the other hand, between any two points in the numerical scale, the intervening numbers are definite and limited ; whereas between any two points in a qualitative scale there seems to be no definite limitation to the qualities that

may intervene. Both these statements might, no doubt, be questioned. By introducing fractions the numerical series can be indefinitely extended; but, when this is done, we are no longer dealing with units. Again, it may be urged that the series of actually distinguishable qualities between any two points is limited. But this seems to depend on the fineness of discrimination in sense-apprehension, and might possibly be altered by an improvement in this respect.

Intensive magnitude has in common with qualitative magnitude the heterogeneity of its increments and the lack of definite limitation in the possible distinctions between any two points; but it resembles numerical magnitude in the absence of any definite limitation at its upper end.

Extensive and protensive magnitude seem to resemble numerical magnitude in the homogeneity of their increments, which can consequently be treated as units; and in their lack of limitation at the upper end. In the other characteristic to which reference has been made, they resemble qualitative and intensive magnitudes. Whether distinguishable parts of an extensive or protensive magnitude should really be regarded as homogeneous may, no doubt, be questioned. It has been questioned, more particularly with regard to protensive magnitude, by Professor Bergson and others. But the doubt here raised has reference to what has been called "real duration"; with that we are not at present concerned. When we are simply concerned with the relation of before and after—as in the letters of the alphabet—there seems to be nothing to distinguish the distance between any two successive numbers from that between any other two. This may not be the case when we are dealing with special cases of succession, such as states of consciousness; but there we are concerned with variations in quality or degree. Similar differences might be introduced in the case of extension.

9. *Finite and Infinite Magnitudes.*—One of the distinctions to which attention has been called in the previous section is specially important—viz. that between series that are definitely limited and those that stretch out indefinitely. We have noticed two distinct ways in which such indefiniteness appears. A scale may either be endless, or it may contain

an indefinite series of approximations to a definite end. It is on these characteristics of series that the general conception of infinity is based. Whenever there is a continuous series of relations of a definite kind, one or other type of infinity presents itself. The addition of unit to unit can be carried on indefinitely. Increments of intensity have also no definite limitation ; and the relations of side-by-side-ness and before and after can also be repeated without any assignable limit. Similarly, where a definite quality is conceived, we may suppose an indefinite series of approximations to it. The conception of infinity that is thus reached is of great value in mathematics. It enables things which are in themselves indefinite to be definitely treated. Things that are qualitatively different may in this way be brought into relation to one another. A regular polygon, for instance, by increase in the number and diminution in the length of its sides may approximate more and more nearly to a circle without actually becoming one. When the sides became very numerous and very small, it would hardly be possible to distinguish it from a circle. This may be expressed by saying that, if they became infinitely numerous, it would become a circle. As a matter of fact, it is probably true that any circle that can actually be drawn is a many-sided figure. Other applications of this mode of statement could easily be found. When, however, such mathematical conceptions are applied to concrete objects, they are apt to become misleading. Many puzzles have been based upon applications of this conception of infinity. The paradoxes of Zeno, for instance, are largely based upon it. The famous puzzle about Achilles and the Tortoise turns largely on the supposition that the movements of beings that walk or run can be regarded as strictly continuous, and so as consisting of an infinite number of distinct movements. This is clearly not the case. Movements in walking or running are made up of a limited number of steps or leaps. In the case of a flying arrow or cannon-ball, it might seem that the movement is more strictly continuous. But probably this is not the case. Whenever we are dealing with an immense number of things, they may be conveniently treated as infinite. The number of stars may be regarded as infinite ; but, apart from any metaphysical theories, there

appear to be physical grounds for regarding the material universe as a limited system. From an abstract point of view, it seems that there might be an indefinite number of dimensions in space; but three suffice to deal with almost all the relations between spatial objects that can be definitely ascertained. There might conceivably be an indefinite number of qualitative differences in colours; but it is possible to ascertain the number that can actually be discriminated. Instances of this kind serve to show that the conception of infinity has to be applied with caution. The same remark applies to approximations to a type. Perfect redness, perfect purity, perfect truth, perfect wisdom, perfect goodness, perfect power, all represent ideals which it is difficult—perhaps in some cases impossible—to realize completely. Hence we are apt to think of them as infinitely removed, and as admitting of an infinite number of approximations. But it may be doubted whether we are entitled to make such an assumption. Such problems, however, will have to be further considered at a later stage.[1]

[1] Book III, Chapter III, especially §§ 10 and 15. It may be well to note here that the expression "side-by-side-ness" which is used in this chapter, as well as elsewhere, is not wholly satisfactory. It is the best equivalent I can find for the German *Nebeneinander*. I use it for spatiality, in its most general aspect, as distinguished from what is sometimes called "physical space." The importance of this distinction may become more apparent in the sequel. See especially Book III, Chapter I, § 5. Aristotle's ποῦ, as I understand it, refers definitely to position in physical space, not to the simple relation of *partes extra partes*, which is all that is here in view. On the other hand, the undifferentiated continuum which recent psychologists call "extensity" would seem to be characterized only by degree, though it contains the potentiality of a distinction of parts existing side by side.

CHAPTER IV

CAUSATION

1. *General Conception of Causation.*—We have noticed already that we do not believe anything without some ground that seems to us sufficient. In general, the ground for the acceptance of any judgment as true is found in some other judgment or set of judgments on which it depends in accordance with some recognized order. The hypothetical judgment, in the form If A then B, expresses this relation of dependence. Now, any of the orders to which we have already referred, may serve as a basis for such an inference. If man, then rational, depends on the recognition of the kind of being to which the term man is applicable. If green, then between yellow and blue, depends on the recognition of relations between colours in a qualitative scale. If 4, then 2 + 2, depends on the recognition of numerical relations. If equilateral, then equiangular, depends on the recognition of certain spatial relations. If good, then desirable, expresses certain conscious relations. Sometimes, however, one thing depends upon another in virtue of relations that cannot be definitely referred to any of these orders. It is chiefly, though not exclusively, in such cases, that we make use of the conception of causation. Consequently, it has its application chiefly with reference to objects that are different in kind. It may be well to bring this out by means of a few illustrations.

A simple illustration would be that of the flight of an arrow. If an arrow is flying in a particular direction, it will eventually come to rest at a definite point. Its arrival at that point may be said to be an effect which is caused by the various antecedent positions in its movement. Now, these positions form a continuous spatial and temporal order. Such

continuous movement would not usually be described as causal, any more than we should usually say that one point in the motion of a swinging pendulum is the cause of the next. On the other hand, when we trace back the motion of the flying arrow to its origin, we find that it starts from a certain position in relation to a bow; and we are led to ascribe its flight to the tension of a string, and the movements of some person's hands. These facts are quite different from the flight of the arrow; and it is the relation between such different facts that we most commonly describe as causal.

A more complex case would be found in such an event as the French Revolution or the present great War. When we ask for the causes of such events, we should find them for the most part in circumstances that are not homogeneous with the effects. The facts are seen in such circumstances as those that are vividly related by Carlyle or reported in the daily papers—meetings of parliament or councils of war, movements of troops, processions of enraged people, destruction of buildings, killing of men by shot, bomb, guillotine, and so forth. Such events have a certain continuity: one leads on swiftly or slowly to another: but they are not the circumstances in which we should commonly seek for causes. We should look for these rather in such facts as the economic conditions of the people, their views of life as expressed by some of their prominent teachers, such as the encyclopedists or the German philosophers, theories of government, such as those of Rousseau or Treitschke, the characters of monarchs, the ambitions of public men, the fears and jealousies of various individuals, their understandings and misunderstandings of one another; all things very different from the events that we describe as their effects.

Reflection on such instances leads us to surmise that causation may properly be regarded as a mode of order that connects things that are different in kind. If so, it may supply an important link in the general view of the world that we know, as being an orderly system. It may help to bridge over the gulf between kinds, which appears to be one of the chief obstacles in the way of such a view. This, however, is not an aspect of the subject with which we are at present concerned; since we are trying to deal with special features of

our universe, rather than with the universe as a whole. Still, it must be confessed that we here reach a point at which it is not altogether easy to adhere strictly to this limitation. The consideration tends to lead us to the thought of the whole. But we must try to set aside these larger considerations; and in order to see more precisely what is to be understood by the causal order, it may be well to notice some of the chief theories that have been held with regard to it.

2. *Aristotle's Four Causes.*—Aristotle was the first who made a definite attempt to set forth the different ways in which causation may be conceived. He distinguished, as is well known, between material, formal, efficient, and final causes. That in some sense these can be distinguished is clear enough; but, if causation is to have a quite definite meaning, it would seem to be necessary either to reduce them to one or to find some general principle under which they may be included. We have already seen how a first step may be taken in this direction by breaking down the distinction between matter and form. A typical illustration may now help us to proceed farther.

If we take the case of a house, it is evident that we may give a sort of explanation of it by calling attention to the stones, bricks, wood, iron, and so forth, out of which it is composed. To do this is to give its material cause; and, if it were the ruins of a house, instead of a house in being, it might be all the explanation that was wanted. In dealing with a heap of rubbish, we might be content to know what kinds of rubbish are there. Early accounts of the world as consisting of fire, air, water, and earth were somewhat of this character. In explaining a house, however, it is evident that we are carried much farther by giving an account of its form—i.e. of the order in which the various things of which it is composed are arranged. This gives the *how*, instead of the *whereof*. But even the *how* is not much of an explanation without the *why*. This we get, in the case of the house, by an account of the purposes that are served by doors, windows, chimneys, etc., and of the advantages of using particular materials in their construction, of placing

them in particular positions, etc. This supplies us with *reasons*, but hardly yet with *causes*. We still want to know *whereby*. To answer this at all fully, we have to make use of the other three modes of explanation. It would be natural to begin with the final cause. We might begin by stating that some individual recognized the value of having a house at a particular place, and ascertained that he had the means of employing an architect and a builder. The architect, having understood what was wanted, thought out and prepared his plans. The builder, having understood the plans (i.e. having become aware of the form), instructed a number of people to secure the necessary materials, to bring them to the place where they were wanted, and to put them together. The owner, the architect, the builder, and the various workers who are employed, are the efficient causes; but they become efficient by apprehending and making use of the final cause, the formal cause, and the material cause. If, however, the house, after being built, were to be wrecked by an earthquake, it would be difficult to point to any final cause for this result; there would only be certain materials in certain forms, and certain forces working in accordance with certain laws.

Now, when we consider these four causes, it seems clear that the material cause is not what we understand by cause, in any ordinary acceptation of the term. We have already given some ground for believing that matter cannot be, in any ultimate sense, distinguished from form. The stones that enter into the constitution of a house have already a form of their own. This form may be, in some degree, modified by the workmen, before the stones are placed together to form part of the house. The house itself might come to form part of a city; and its structure might have to be in some degree modified for this purpose. What is formed may be re-formed, and may become part of a larger whole that has a different form. Throughout such transformations, it is always forms with which we are concerned; and it does not appear to be really possible to distinguish matter as anything essentially different. Hence we may set aside the material cause.

The final cause may also be set aside for the present,

though it may be necessary to return to it afterwards. In our ordinary use of the term, it does not constitute a cause. The mere fact that something would serve a purpose or have a value does not, in our ordinary experience, bring it into being. The purpose becomes a cause only by becoming efficient. Some one has to apprehend its value or importance and then seek for the means whereby it can be brought into being. The good seems, on the face of it, to be powerless until some one recognizes it as good and uses the means to secure it. We shall have to consider later whether this statement requires any qualification. In the meantime, final causes simply as such may be set aside.

The formal cause might also seem to be hardly what we understand by a cause. The plan of a house does not bring a house into being until some one adopts the plan and sets about building the house in accordance with it. But in some other cases this is not so obvious. A plant seems to form itself without any builder. Even a work of art seems sometimes to grow almost unconsciously. And some scientific explanations appear to be almost purely formal. When it is said that a stone falls to the ground by the force of gravitation, it is difficult to interpret the force of gravitation in any but a formal way. Hence it is by no means certain that the formal interpretation can be set aside. On the contrary, it is probably the truest interpretation; and we shall have to return to it shortly. But for the present we have to note that it does not, on a first view, appear to be satisfactory. It is not so in the case of the house; and in the case of the plant or of gravitation it is natural to try to find some explanation that is not simply formal. People try to explain the growth of plants by mechanical conceptions; and in the case of gravitation they often think that the motion can be accounted for by some attractive or repulsive force; and this force is thought to be somehow an efficient agent. Hence it will probably be best to set out with the conception of efficiency.

But what are we to understand by efficiency? The most obvious way of thinking of it is that which has just been indicated—attractive or repulsive force. The plan attracts the architect or the owner, and leads him to take steps to

embody it. The materials are pulled or pushed into their places; and either of these processes seems to depend on repulsion. We may begin, then, by considering causation as meaning attraction or repulsion.

3. *Attractive and Repulsive Force.*—The most obvious meaning of these expressions is that in which they are applied to human choice. What is pleasant or beautiful or good appears in general to attract us; while we are repelled by what is unpleasant or ugly or evil. It is in this way that final causes become efficient; and this we shall have to consider at a later stage. In the meantime, it does not appear that this is what is meant by attraction or repulsion when these terms are used with reference to the fall of a stone or the pushing of it into its place in a building; and it is certainly not easy to explain what they are to be taken to mean in such a connection. Attraction, in particular, appears to have no definite meaning. What is to be understood by saying that when two bodies are placed close together, they attract one another? It seems clear that we do not mean that they like one another or desire one another's company; but it is hard to see what else we do mean, except that they tend to move towards one another; and that they tend to do so does not appear to mean anything more than that, in certain circumstances, they do so. But this would be a purely formal explanation. Repulsion appears to be somewhat more intelligible. That one thing, when it moves towards another, pushes the second away, seems to be explained by saying that two different things cannot be in the same part of space at the same time. Hence attempts have been made to explain all mechanical action as dependent on repulsion. The Leibnizians recognized only repulsive force. It is obvious that what is commonly called a pull, as distinguished from a push, really involves a push. A stone can be pulled by a rope only if the rope passes round it, so as to push it from behind. Hence some seek to explain gravitation as really due to pressure from outside; but it seems to be very difficult to find any explanation of this kind. Even in the case of pulling the stone, the cohesion of the parts of the rope cannot easily be explained as a

push. Kant argued with some force that the material system cannot be understood without both attractive and repulsive force. Without entering into this, it may be asked whether a repulsive force is really more intelligible than an attractive one. It is easy to say that two bodies cannot be in the same place at the same time; but is it any more obvious than that two persons cannot have the same thought at the same time, which appears to be false? It would seem that a colour and a shape can be at the same place at the same time. It is not obvious (though it may be true) that purple does not contain a red and a blue aspect at the same point. Can any real reason be given for believing that two things cannot be at the same place at the same time, except that we find that things of a particular kind, which we call material bodies, decline to share the same place? If this is all, efficiency in this case means only that there is a certain formal rule by which the movements of bodies are governed. Why, then, may we not equally well suppose a similar rule in the cases that we describe by the term attraction? If so, both cases would be cases of formal causation, rather than of anything in which efficiency appears to have any definite meaning. If it is to have any definite meaning, it would seem to be necessary to find some other way of interpreting it. This appears so obvious that it is not worth while to dwell upon it further.

4. *Descartes' Theory of Causation.*—Descartes sought to give more definiteness to the conception of efficient causation. He urged that a cause can only be supposed to be capable of producing an effect when the effect is already contained, "formally or eminently," in the cause. This appears to mean that the cause must either contain something identical with the effect or something intrinsically greater. His general principle may be briefly expressed by saying that nothing can come of nothing, and that what is greater cannot come from what is less. These statements no doubt commend themselves to common sense; but do they throw any light on what is to be understood by efficiency? First it will be well to inquire what is to be understood by greater and less. If we take it in the sense

of numerical magnitude, it is evident that the greater contains the less: 2, for instance, is 1 + 1. In this case, therefore, it would seem that when the cause is greater than the effect, it contains something identical with the effect. Here "eminently" is not really distinguished from "formally." The same would seem to apply to extensive and protensive magnitude. In the case of intensive magnitude, however, it does not appear to be true. A bright light does not contain a number of dim ones. Yet some of the conditions on which brightness and dimness depend are numerical. A bright light may be dependent on the presence of a number of candles; and it may be reduced to a dim one by removing some of the candles. Apart from this, is there any real reason for supposing that a dim light could be more readily produced from a bright one than a bright from a dim one? It is not obvious that there is. Nor is it obvious that the imperfect can more readily be got from the perfect than *vice versa*. No doubt it is in general more difficult to produce what is perfect than what is imperfect. Any one can produce an ugly picture; but only a skilled artist can produce a beautiful one. But the reason for this seems to be mainly that there are an indefinite number of ways in which ugliness can be produced and only a limited number of ways in which beauty can be achieved. If a definite kind of grotesqueness were aimed at, it might be as difficult to secure this as to secure beauty. Hence it is by no means apparent that it is more difficult to produce the perfect than the imperfect. But it is on this supposition that the contention of Descartes rests, when he speaks of the effect being contained "eminently" in the cause. If we drop "eminently," we are then left with the theory that the cause must be in some way identical with the effect. This would seem to mean that motion may be produced by motion, colour by colour, life by life, consciousness by consciousness, and so forth; but that nothing can ever give rise to anything different from itself. Yet so little confidence had Descartes in this doctrine that he actually held it as being axiomatic that the existence of a living being at one moment could not be the cause of the existence of the same being at the next moment. It would seem, therefore, that his view really amounts to

saying that the cause must be absolutely identical with the effect. But this surely means that there is no such thing as efficient causation. This conclusion appears to have been drawn by Spinoza, who holds that every existing thing or mode must be regarded as being deducible from—i.e. eternally contained in—the structure of the whole. This seems to be the logical outcome of the doctrine of Descartes; and it makes causation purely formal.

5. *Berkeley's Theory of Causation.*—We may now notice another method of seeking to give an interpretation to efficiency, of which Berkeley may be taken as the most conspicuous representative. According to Berkeley, the only case in which we find any direct evidence of efficiency, and the only case in which we are really entitled to assume it, is in the activity of will. There is an obvious plausibility in this. In other cases, when we try to discover efficiency, we are led back from point to point. But in an act of choice, we seem to reach an ultimate source of action. In the building of a house, the placing of the materials is explained by the movements of workmen. They are directed by their overseers, and these by the master builder. He is under the direction of the architect, and the architect is set to work by the owner. But when we come to the choice of the owner, we seem to have reached something ultimate. Here, if anywhere, we may expect to find efficiency. Obviously we are here brought back to the consideration of the final cause. When something is chosen, it is selected as being in some way good; so that the question now is, In what way can the apprehension of something as good be seen to be efficient? Obviously there are some limitations to its power. The choice of something—e.g. a house—as a desirable end leads to a series of movements directed towards its realization. It is clear that these are not all under the direct control of the will. Hence Berkeley, like the Cartesians before him, supposes them to be guided by another will—the will of God. With that we need not at present concern ourselves. The question at present is, What part of the action can be said to be controlled by the will of the agent, and in what sense is it so controlled? This is a problem that we shall have

to consider more fully at a later stage. In the meantime, what appears to be urged by those who support this doctrine is that choice—i.e. the apprehension of something as good—gives a certain dominance in consciousness to the object that is chosen, and that this dominance leads to a series of movements. It would seem, however, that choice is seldom, if ever, the selection of something as absolutely good. It is rather its selection as better or more valuable than possible alternatives. Hence what is meant appears to be that the occurrence of an object in a relatively high position in a scale of values gives it a relatively high place in the scale of intensive apprehension. It would seem, however, that what is apprehended as evil gets a similar dominance, but leads to actions of a different kind. It would appear that the kind of causation here involved is largely formal. Position in a scale of values leads to special kinds of movement, just as relative positions in space lead to other kinds of movement. Is efficiency any more apparent or more intelligible in the one case than in the other? Do we not simply apprehend in both cases certain regular ways in which changes follow upon positions in particular forms or scales? It is at least not obvious that we can discover anything more. But, as already noted, we shall have to return to this problem.

6. *Hume's Theory of Causation.*—Reflection on the unsatisfactoriness of these theories led Hume to deny that the element of efficiency could ever be discovered in any case of apparent causation. Hence he urged that all that we are entitled to state is that we discover certain regular ways in which things in themselves different are connected—especially a certain regularity in the sequence of similars—and that we are thus led to expect that such regularity will be continued. Experience justifies this expectation; but we know of no real ground for believing that it will always justify it. We are in the same position in which we may suppose the lower animals. A fowl that has frequently been fed by a particular person at a particular time of day seems to get into the habit of expecting to be fed by that person at that time. This expectation may continue to be justified for many days; but a day may come at last when that person, instead of

feeding it, will wring its neck. So it may be with us. The orderly system of our ordinary experience may at any time lapse into chaos. We do not apprehend any efficiency in the causal order, but only a certain regularity of sequence, which contains no absolute guarantee of permanence.[1] Hume's treatment of this aspect of the subject is so clear and convincing that he may be said to have achieved in it one of the very few decisive victories in philosophy.

7. *Kant's Theory of Causation.*—Kant criticized Hume's view in a highly elaborate way, the exact point of which is largely dependent on special peculiarities of his philosophy, which we cannot at present discuss. But his main contention may be briefly stated. He urges that the doubts raised by Hume with regard to the persistence of the causal order may be equally well raised with regard to other objective orders[2] —especially those of space and time. He argued that we could not assign objects to definite positions in space and time without assuming that they are connected with one another by regular causal relations. I may think of the French Revolution as occurring at any time and place, and may take the events in that Revolution in any order I please. But I assign them to a particular time and place and believe that they happened in a particular order in virtue of my general conviction that the facts of geography and history are related to one another in certain regular ways. But for this we should have an endless variety of times and spaces instead of the one time and the one space that we recognize as objectively real. Thus Kant contends that the persistent

[1] Hume has been so often charged with inconsistency (e.g. by Reid and by Mr. Balfour) in combining a practical recognition of the causal order with doubt as to the necessary connection that is supposed to be involved in it, that it may be worth while to state here, that he does not appear to be chargeable with any such inconsistency. He found, as the lower animals do, that there is a certain regularity in experience; and, like them, he adopted the modes of behaviour that were found to work. He never conceived himself to be more ignorant than the brutes; but only that, in this particular respect, he was not more knowing.

[2] Hume's *Inquiry concerning Human Understanding*, in which his view about causation is most fully and clearly stated, contains hardly anything else; and, as this seems to have been the only part of Hume's definitely metaphysical work with which Kant was directly acquainted, he assumed that it contained the whole substance of Hume's philosophy—an unfortunate mistake. Hume had dealt with other orders—though hardly with equal clearness—in his *Treatise*.

reality of the causal order is as necessary an assumption for our knowledge of the objective world as that of time and space. Kant, however, did not believe that time and space have any absolute reality ; and hence it cannot be said that he wholly disagrees with Hume. Some of the questions that are here involved will have to be dealt with later. In the meantime, it seems clear (though perhaps it was not quite clear to Kant himself) that he does not, any more than Hume, provide us with any conception of efficiency. He only urges that we have to recognize an objective order of connection ; and that this order extends as far as objective time and space do.[1]

8. *Causation as Formal.*—Reflection on these discussions about causation leads us to see that the conception of the formal cause is more fundamental than the others—that, in fact, it is hardly possible to give any definite meaning to the other conceptions of causation without interpreting them in a formal way. Aristotle himself seems to have recognized that ultimately the efficient and final cause cannot be distinguished from the formal. Form and Matter are his only ultimate antitheses ; and we have urged that this antithesis does not hold as ultimate, though it has some value in dealing with particular cases. According to the view to which we are thus led, such a conception as that of gravitation may be taken as a type of the meaning of causation. Here there is no temporal antecedent ; or at least the conception of antecedence and sequence has no real significance. There is no need to ask whether the sun was before or after the earth ; or whether these bodies existed before the tendency to move towards one another in a certain definite way began to operate. The general mode of operation is the fundamental point ; and of this general mode the movements of sun and earth are particular instances. It is an orderly way in which things otherwise different are connected together. No doubt this orderly connection does sometimes show itself in the form of sequence. Even in the case of the sun and the earth it results in a sequence of positions

[1] On the relation of causality to time, Bosanquet's *Logic* (Book I, chapter vi) may be consulted with advantage.

and movements. In the case of volition the element of sequence is more marked. The house comes after the volitions of the original owner, the architect, the builder, and the workers. But here also the essential point is that the conception of something as good tends to lead in an orderly way to the existence of the object that is so regarded.

It is evident, of course, that the singling out of the formal aspect of causation as the most fundamental need not prevent us from recognizing the other aspects that were referred to by Aristotle as being of considerable importance in the treatment of particular cases. In human actions, such as the building of a house, the final cause is rightly brought into prominence; because human choice is an order of such a kind as to involve some reference to ends. But, unless we are entitled to apply teleology in the general interpretation of nature—a question with which we are not at present concerned—we are not justified in regarding this aspect of causation as one that can be universally used. In human actions also, and in other cases in which one object may be regarded as relatively active and another as relatively passive, we may properly speak of efficiency; provided we remember that we do not seem to be entitled to mean by this anything more than that, in such cases, the causal order involves a certain sequence of the states of one distinguishable object upon those of another. But it is hardly possible to apply this to such instances as that of the mutual attraction of physical bodies; though here also the extent to which the conception might be used may be affected by the view of the universe as a whole to which we are ultimately led. Similarly, it remains true that we have to take some account of the material cause, in the sense that, when there is a formal principle of connection, the mode of its operation depends on the structure of the particular objects that are affected by it—e.g. in the case of building a house, by the properties of the materials that are employed.[1] But it is the organizing

[1] As an illustration of the general way in which form may be influenced by matter, Professor Muirhead makes the following suggestion: "A good instance is the form of art in a particular material, e.g. painting of a wooden statue, which might be inappropriate for a marble one. (The Greek painting of marble was,

principle that seems to be most properly regarded as the essential element in all causation.[1]

9. *Chief Modes of Causal Relation.*—The discovery of particular modes of causal action belongs rather to the special sciences than to philosophy; but, for the sake of illustration, it may be well to refer here to what seem to be the most important modes that have so far been ascertained. We may notice two that apply mainly to the material system and two that apply mainly to living beings. The first two are the conceptions of attraction and repulsion and the conservation and dissipation of energy; the second two are the conceptions of growth and decay and of desire and aversion. It is noteworthy that in all the four cases there is a positive and a negative aspect.

With regard to attraction and repulsion, there is not much to add to what has been already noted. It does not appear that any real explanation can be given of the facts indicated by these expressions; except in so far as they may be held to be explained by Kant's contention[2] that without them a material system would be inconceivable. If this can be shown, it means that the general conception of a material system implies the kind of relation that is implied in these expressions. It would then be the existence of a material system that calls for explanation.

Perhaps the same might be said about the general doctrine of energy; but this doctrine seems to be still in some

I believe, a survival of wooden painted statues.) Another is the treatment of mosaics. When it approximates to fresco, owing to the fineness of the mosaics, it seems inappropriate." In art, however, it is sometimes difficult to determine what is form and what is matter. In poetry, for instance, the metrical structure would generally be called the form, and the ideas or sentiments that are expressed the matter; but it might be better to regard the latter as the formative principle, seeking expression in an appropriate material. In music the distinction between form and matter almost disappears. Yet even there the particular instrument counts for something. The emotions that may be uttered on the banjo or the Jew's-harp can hardly be the same as those that find expression through the violin or the organ. See also A. C. Bradley's *Oxford Lectures on Poetry*, p. 24.

[1] This point seems to me to be very well brought out by Dr. McTaggart in his article on Causality in *Mind* (July 1915); though his method of approaching the subject is very different from that which is here adopted.

[2] In his *Metaphysical Rudiments of Physics.* See Caird's *Critical Philosophy of Kant*, vol. i, pp. 464–6.

respects lacking in clearness.[1] At first it was interpreted as meaning the permanence of the amount of movement in the material system. Now it seems to mean little more than that when the amount of movement, estimated in a certain way, is increased or diminished, the balance can, under certain circumstances, be restored. Hence it is said that whatever is lost may be regarded as still existing potentially. This may be a convenient way of speaking; but essentially it seems only to mean that there is an orderly way in which changes in the total amount of movement in any system take place. According to the doctrine of dissipation of energy, it would seem that eventually the amount of motion in any finite system would be reduced to zero. So far as this goes, it seems to mean that the material system cannot be regarded as permanent. This we may have to notice further at a later stage. In the meantime, it seems clear that the conception of causation involved in this doctrine is essentially formal. It is simply a general statement with regard to the quantitative aspect of motion in the material system. Perhaps such a conception, like those of attraction and repulsion, may be implied in the existence of a material system; but it does not appear that this has, as yet, been shown.

The general fact of growth seems, in like manner, to be involved in the existence of what we call living beings; and it would seem that everything that grows is also liable to decay. The conception of growth has been greatly extended by its application, not only to individual organisms, but to species and communities. It has sometimes been thought that growth might be regarded as the simple unfolding or evolution of what is already there. This connects with the Cartesian view that the effect contains nothing but what is already present in the cause. Professor Bergson has done valuable service by contending against this view, and re-introducing the conception of epigenesis or "creative evolution." But it seems clear that the *élan vital* of which he

[1] For some discussions bearing upon it, reference may be made to Ward's *Naturalism and Agnosticism*, vol. i, lecture vi, and to Driesch's *Science and Philosophy of the Organism*, vol. ii, pp. 162–200. See also the statements in the following chapter, especially § 9.

speaks is a purely formal conception. It means simply that there are certain directions in which growth takes place. To this we may have to refer again later.

Choice, in its positive and negative aspects (appetition and aversion), has already been noticed; and we have urged that no explanation of its causal efficacy can be found in any definite conception of efficiency. It simply means that in conscious beings the apprehension of value—i.e. of degrees of good and evil—is connected in certain regular ways with the initiation or change of movements of special kinds.

Thus all the important modes of causal action appear to be essentially formal.

10. *Distinction between Cause and Effect.*—The causal relation, as we have already noted, is conveniently expressed in the form of the hypothetical judgment, If A, then B. This is generally taken to mean that, if a particular cause exists, it is followed (not necessarily in the temporal sense) by a particular effect. Now, it is evident that we are not entitled to convert a hypothetical judgment simply. We are not entitled to say, If B, then A. It is on this fact that the doctrine of "plurality of causes" rests. This doctrine has a certain plausibility. Death may be brought about by various diseases, by various accidents, by various acts of violence; and sometimes (e.g. in cases of poisoning) it may not be easy to determine to which class a particular instance should be referred. Similarly, a picture may have been produced by photography or by the work of a skilled artist. It has been urged,[1] however, that if the effect is examined with sufficient care, it would always be possible to ascertain in what way it has been produced. This is probably true, though in some cases it would be extremely difficult to verify it. A nest, for instance, might be constructed by a human being in such a way as to be indistinguishable from what is normally the work of a particular species of bird. What is more obvious is that plurality of effects can be as readily detected as plurality of causes. A disease may produce death or it may result in the strengthening of the system. A well-laid scheme may succeed or fail.

[1] See especially Dr. Venn's *Empirical Logic*, chapter xvii.

In fact, it is in general very evident that it is at least as easy to reconstruct the past as to foretell the future, to infer causes as to infer effects. On seeing a watch, we may readily infer that it has been made by some human being; whereas we cannot infer from the sight of a human being that he will ever make a watch. In the case of a bird and its nest, on the other hand, we may pass with almost equal confidence in either direction. Hence it would seem that the hypothetical judgment that expresses causal relationship, if valid at all, may equally well be inverted. But, if so, what becomes of the distinction between cause and effect? Unless we can give some meaning to efficiency, it would seem that the so-called cause is just as dependent on the so-called effect as the effect is dependent on the cause. This leads to somewhat paradoxical conclusions. Are we to say, for instance, that the building of a house is no more dependent on human volition than human volition is on the building of a house?

The view of causation that has now been indicated enables us to answer this question. The real cause, from this point of view, is not a particular event but a general principle. When any particular result occurs, it can be connected with other occurrences before and after and simultaneous; but the real cause, in the most significant sense of the word, is not to be found in any of these, but in the method of their connection. Death is not the result of disease or accident or violence in themselves, but of these as connected in certain definite ways with vital structure. The building of a house is not the direct result of an act of will (which might easily fail to carry itself out), but of the general way in which choice leads on to a series of movements. Now, it seems clear that without choice there would be no such thing as a house. But it cannot be said that without houses there would be no such thing as choice. Men might choose to live in caves or tents or in ships or balloons. Hence it seems truer to speak of plurality of effects than of plurality of causes. The principle of gravitation serves as the explanation of an indefinite number of very different occurrences. So does the principle of conservation, so does the principle of growth, and so does the principle of choice.

It must be remembered, of course, that we are here referring to the way in which objects of a particular kind are connected with objects of a different kind. If we inquire how it comes that a definite individual thing exists in the precise way in which it does, or how a definite event occurs exactly as it happens, we have to take account of an indefinite number of circumstances—perhaps even of the structure of the universe as a whole. The hyssop, as it has been said, grows in the wall, because the whole universe cannot prevent it from growing; or, as it has otherwise been put, because the whole universe helps it to grow. From this point of view, it may be held that the cause of anything is everything else. But this raises the general problem of the order of the universe, with which we are not yet prepared to deal. It seems clear at least that, within that general order, we can distinguish special orders of connection; and it is only with these that we are at present concerned.

It may be well to add that, though we are sometimes more readily able to infer from the effect to the cause than from the cause to the effect, yet a certain priority attaches to the latter mode of inference. From the sight of a watch we can infer the action of a man, but only because we already know that human beings are in the way of trying to measure the lapse of time and of devising mechanical means of doing it; and we do not know of any other beings who do this. We cannot infer that a particular man will produce a watch; because there are many ways in which the lapse of time may be measured, and many ways in which men may employ their time; and any one man may depend on others for the production of suitable means for this particular end. Nevertheless, it is primarily the structure of the human intelligence that leads us to recognize the watch as one of its manifestations. If there were a number of men on a remote island, we could confidently predict that they would devise some means of measuring time in a more or less accurate fashion; whereas, however many watches there might be on such an island, we could not predict that human beings would be there—hardly even affirm that human beings had been there; for the watches might have been carried by birds. In general, it seems to be true that it is the organizing

principle that gives us confidence in determining what follows from it. No doubt the organizing principle itself may be only a hypothesis suggested by the study of particular occurrences ; but until we have formed the conception of such a principle we have no ground for any confident inference.

11. *The Conception of the Self-caused.*—Spinoza, who was one of the first to give definite expression to the formal conception of causation, introduced, in connection with it, the conception which he indicated by the phrase *causa sui*. It may be well to consider at this point, how this phrase is to be interpreted. If the interpretation that has now been put upon causation is correct, it seems clear that we do not really get any explanation of it. Attraction and repulsion, conservation, growth, choice, are principles that may be used to connect a great number of diverse things, but they are not themselves explained. It may be asked whether it is conceivable that we should be able to find anything that would explain them more fully. It does seem to be at least conceivable. For instance, if Kant is right in thinking that a material system cannot be made intelligible without definite laws of attraction and repulsion, this would seem to furnish a further explanation of the existence of these laws. But the existence of a material system would still call for explanation. Hence we are led to ask whether any system can be conceived which should be, in the full sense of the word, self-explanatory. Such a system would be, in Spinoza's language, *causa sui*. Now, it seems possible at least to point to certain approximations. They are to be found especially in the region that was specially familiar and attractive to Spinoza, and to the Cartesians in general—viz. mathematics. The system of numbers may almost be said to be self-explanatory. Once we know what the conception of number means, all the relations between numbers can be deduced, without appealing to anything that lies outside of that particular order. All that it seems to presuppose is a manifold of distinguishable elements ; and, as we cannot think even of a complete chaos without supposing such a manifold, the conception hardly seems to call for any explanation. The relation of before and after is almost equally simple and

that of side-by-side-ness hardly less so. It is when we pass to differences of degree and quality that the need for further explanation begins to become apparent; and, when we come to differences of kind, the gulf between them seems so impassable that it is hardly possible even to conceive of any means by which the existence of those particular distinctions could be made intelligible. Causation enables us to connect things different in kind—e.g. colour and heat as both involving certain quantities of energy, and giving place to one another in accordance with definite laws—but it does not in the slightest degree help us to explain the differences themselves. Huxley urged that the appearance of a colour, following on a particular mode of motion, is as mysterious as the appearance of the Djin on the rubbing of Aladdin's lamp. But the growth of a plant or (as Lord Kelvin suggested) the behaviour of a spring, or of a magnet, is, in reality, hardly less mysterious. Is it conceivable that there should be any explanation of such occurrences? Even Kant, it should be remembered, did not profess to explain particular cases of causation, but only contended that some definite order is necessarily implied in a system of nature. Plato thought—though not without some hesitation—that the conception of Good might furnish us with the explanation that is wanted. Certainly, if it could be shown that distinctions of certain kinds are required to constitute a perfect Cosmos—say, in a way more or less analogous to that in which Kant sought to show that attraction and repulsion are necessary for the existence of a material system—it does not appear that we should want any further explanation. The possibility of this will have to be considered later. In the meantime, it seemed right to notice the problem at this point, as being raised by the attempt to carry out fully the conception of causal explanation.

12. *Causation as a Mode of Unity in Difference.*—Apart from the possibility of such a complete explanation as that now referred to, it would seem that what the principle of causation does for us is to enable us to bring together things that are in themselves different, as being connected by relations that have a certain regularity. Bodies that are

otherwise different may attract or repel one another in a uniform way. Modes of motion that are very different—those, for instance, that serve as the conditions for the appearance of sound, light, and heat—may be connected together by the general principle of conservation of energy. Qualities that are different may be connected by quantitative relations in the conditions of their origin. Changes in an organism may be connected by general laws of growth, and species of plants and animals by general conditions of evolution. The very varied actions of conscious beings may all be connected by the general conception of valuation as a source of movement. These modes of explanation do not annul the differences; nor do they exhibit them as growing out of one another by such a uniform series of relations as we find in number and those other systems that may properly be described as orders. Yet they do furnish us with modes by which differences can be brought within a certain unity. Hence it seems desirable at this point to consider more definitely what is to be understood by such a unity.[1]

[1] So far as I can judge, the view of causation that I have tried to set forth in this chapter is not fundamentally different from that which is adopted by Mr. Russell; though he has been able to give it a good deal more definiteness, by the use of mathematical conceptions. See especially his paper in the *Proceedings of the Aristotelian Society*, vol. xiii. The treatment of causation by Mr. C. D. Broad in *Perception, Physics, and Reality*, chapter ii, may also be referred to with advantage. See also Ostwald's *Natural Philosophy*, pp. 109–18. It should be noted that Mr. Russell seems to be of opinion that the acceptance of a formal conception of causation involves the renunciation of any real distinction between cause and effect. I think it involves a change in the way in which this distinction is commonly conceived. But in a typical case, such as that of volition, the distinction between the principle on which changes depend and the particular changes that follow from it retains its value. See below, Chapter VI, § 14, and Chapter IX, § 11.

CHAPTER V

MODES OF UNITY

1. *General Meaning of Unity.*—The term, as Kant noted, is somewhat ambiguous. It is used in a numerical sense and in the sense of a whole or system. A planet, for instance, is a unit among planets ; and it is a unity with reference to the parts of which it is composed, each one of which may be treated as a unit. Hence Kant distinguished between the category of unity and what he called the objective unity of apperception, which involves a synthesis of distinguishable elements. It would seem to be necessary, however, to distinguish the latter not only from the category of unity, but also from what Kant called the category of totality. In reality, it does not appear that any absolute difference is to be found between these conceptions. Anything that can be regarded as self-contained or complete in itself may be called a unity. A mathematical point may be taken as a unity when it is thought of by itself. A number of points arranged in a definite order may also be taken as a unity ; but it is then also a totality. A living being, in like manner, may be regarded as a unity and as a totality ; but, unlike the arrangement of mathematical points, it is not a totality of units standing side by side, but a combination of parts related to one another in a variety of ways, spatial, temporal, motor, causal, and in the specific manner that is called organic. If we think of the material universe as a whole, that is a totality of a still more complex kind ; and it also may be regarded as a unit in relation to any other type of universe of which we may be able to think—e.g. the universe described in Dante's *Divine Comedy*. If it is possible to think of a comprehensive universe in which everything that has any kind of reality is included, that would be a totality of a very

complex kind, and it would not be a unit in relation to anything outside of itself. To describe such a unity as a totality would, however, be somewhat misleading; since a totality is generally understood to mean a unity of parts which are themselves units; and it is at least not certain that either an organism or a universe can be properly so regarded. Kant's term "synthetic unity" is open to a similar objection; since synthesis is naturally taken to mean that the objects put together have a being that can be regarded as independent of their combination. This is not necessarily implied in the conception of a unity or system. A unity, when it is not a mere unit, such as a mathematical point, is thought of as containing distinguishable, but not necessarily separable, parts or numbers or aspects. There are objects in some sense "in" it, which can be to some extent distinguished from the more comprehensive object in which they are included. Some reference to the meaning of the word "in" may help to make this clearer.

2. *The Meaning of "In."*—The use of this term has given rise to a good deal of confusion in philosophical discussions. Its primary meaning appears to be spatial, as when we speak of something being in a room or in a bottle; but its meaning is extended very widely to include relations of the most varied kind. A few illustrations may help to bring this out. Consider the following: in a field, in a triangle, in a row, in succession, in relation, in combination, in the Cabinet, in logical order, in the mind, in a book, in fact, in theory, in consequence, in a certain sense, in respect of, in the negative, in imagination, in the highest degree, in proportion, in possession, in itself, in being, in perpetuity, in exchange, in anger. What seems to be involved in all these is that something is referred to something else which is in some respect more comprehensive.[1] Even in the phrase "in itself" this may be said to hold. When we say that an action "is not in itself wrong," we are distinguishing between different points of view from which the action may be regarded. It may

[1] When a person is said to be "in a rage" or "in sorrow," I suppose the rage or sorrow is regarded as a more comprehensive atmosphere in which the person is involved.

be looked at in isolation or in relation to special circumstances ; but the use of the term "wrong" indicates that, even in its isolation, we are considering it in relation to some moral standard. When we say "in itself," we only mean that we are excluding a certain mode of connection which might, and perhaps ought to, be taken into account. The phrase may be regarded as essentially negative. "In itself" means "out of relation to other things"—i.e. *not* in certain relations. Thus it would seem that to consider the various modes of unity with reference to which particular objects may be regarded, is to consider the various ways in which the term "in" may be used. It is difficult to make such considerations exhaustive ; but it may be hoped that the following are at least the most important ways for our present purpose.

3. *The Unity of Members in a Class.*—The unity of the homogeneous appears to be the simplest mode. A flock of sheep is bound together by the common characteristic of sheepishness, quite apart from the herd instinct which also serves to unite it. Now, there is no doubt some difficulty in understanding the relation of the common characteristic to the particular objects that are grouped together by means of it. Plato, who appears to have been the first to think seriously about this problem, evidently felt great difficulty with regard to it. He hesitated whether to express the relation by saying that the universal is contained in the particular, that the particular is contained in the universal, or that there is a copy of the universal in the particular. The difficulty, however, seems to be largely due to our inveterate tendency to interpret "in" in a spatial sense. As soon as we overcome this tendency, we see that there is no real contradiction in saying *both* that the universal is in the particular and that the particular is in the universal. The universal is in one way more comprehensive than the particulars, since it covers them all. In another way the particulars are more comprehensive than the universal, since they are many, while it is one ; and also since they have a number of characteristics, in addition to the one in virtue of which they are grouped together. To seek for spatial analogies, as

Socrates is represented as doing in Plato's *Parmenides,* is evidently futile. If there is a mystery in the presence of the one in the many, it is at any rate a mystery that is co-extensive with the universe. We can only make it appear less mysterious by appealing to innumerable instances of it. To say that it is the most fundamental characteristic of all reality is hardly to say too much. Some have tried to remove the difficulty by saying that the common characteristic which enables one thing to be grouped with others is not the same in the several instances, but only alike. This is the Platonic conception of copying. But, as Plato perceived, likeness is itself a universal. That many things should be alike is not less mysterious than that they should have any other characteristic in common. Nor are we helped by saying that the particulars are called by the same name; for sameness in name is no less mysterious than sameness in colour or in any other respect. The kind of unity, then, which is found in the grouping of particular instances under a universal conception, appears to be one that we simply have to accept and recognize.

4. *The Unity of Relations in an Order.*—It is evident that the objects that are grouped together under universals are not absolutely homogeneous, except in so far as they are simply apprehended as a many—i.e. as numerical units. Even mathematical points differ in position. In general, objects that are the same in kind are distinguished by those qualitative and quantitative differences that have been referred to in previous chapters, and they are connected with one another by causal relations. In a wide sense of the word, all these characteristics may be called the qualities of the objects. These, as we have seen, fall into orders of a more or less definite kind. They are connected with one another by relations that have a certain continuity. Universals are not entirely discontinuous. They have, in Plato's language, a certain community, which may, however, be more or less definitely marked. Things that differ in kind appear, as Anaxagoras would say, to be cut off from one another, as if with a hatchet. But they are at least connected by continuous causal relations. Sounds and colours, which seem to differ

in kind, may be compared in respect of their intensities, as well as by the conditions on which their appearance is dependent. Thus the fact that objects are different does not prevent them from entering into certain kinds of unity.

5. *The Unity of Qualities in an Individual Object.*—What we commonly call things may be regarded, as we have seen, as meeting points of universals. Sometimes such meeting points are evanescent. A flash of lightning has form and colour and some other characteristics; but the combination has hardly any persistence. Other objects, such as rocks, are combinations of qualities that persist, though not without slight changes, throughout a considerable extent of time; and they maintain also a more or less definite spatial relation to other objects of a similar kind. The persistent spatial relations of such objects are, as we have already noted, commonly referred to as their primary qualities. Other characteristics, such as colour, are more variable, and are commonly referred to as secondary. It has often been said that the latter exist "in the mind" of the being by whom they are apprehended, and that their relation to the particular object is only causal. Berkeley extended this way of speaking to the primary qualities as well. If we rightly understand what is meant by "in," this way of speaking may be justified. When a combination of qualities is apprehended as belonging to the unity of an object, the apprehension belongs to a particular conscious centre; and the qualities cannot properly be said to exist except in the sense that they occur in certain connections. Hence they are rightly referred to the particular mind as well as to the particular object. This will have to be considered further in connection with the unity of consciousness. In the meantime, it is enough to note that it is highly misleading to say that colours and other sensible qualities are either in a mind or in an object. An object need not be supposed to carry all the qualities that are rightly referred to it always about with it, any more than a man has all his possessions in his pocket. The answer of Horatio, when he is asked whether he is there —"a piece of him"—may very well be applicable to all per-

sistent objects. Many of their characteristics may be latent till occasion calls for them.

This at least is the view of qualities to which we have been led by the previous discussions. It may be distinguished from that which is held by some (though, I believe, not by all), the representatives of the New Realism, and which seems to me to be the only alternative to the view here maintained. It is the view that has been most definitely urged by Professor Percy Nunn.[1] According to this, qualities are to be referred to things ; and all the qualities that are, at any time, apprehended in connection with a particular object, are to be referred to that object. A particular thing is to be supposed, for instance, to have in it all the colours that, in any particular light, or by any particularly constituted form of eye, are apprehended as contained in it ; and likewise all the shapes that, from any point of view, it presents. This may be said to be the converse of the Berkeleyan doctrine. *Percipi* is *esse*. In a sense, the doctrine here set forth does not disagree with this. Colours and forms are rightly referred to objects, but only to objects in relation to subjects. The view of Professor Nunn may be criticized from the point of view of Occam's razor. It certainly involves a " pluralitas " ; it " multiplies entities " to an enormous extent. It is somewhat like holding that all the commodities that can be purchased by a pound note are wrapped up in that note ; or that all the knowledge of which any one has possession is packed up in the cells of his brain ; or that, because a dog barks at strangers and fawns upon its friends, barking and fawning are to be supposed always to exist in it. It is surely more reasonable to believe that all these characteristics exist only in the circumstances in which they are evoked ; though, *when* they are evoked, they are rightly referred to particular objects, occupying particular positions in space and time, and not merely to the subjects by whom they are apprehended.[2] This seems to apply to what have

[1] *Proceedings of the Aristotelian Society*, vol. x. Some of the new realists appear definitely to repudiate any view of this kind. See, for instance, the article on "Illusory Experience" by Mr. E. B. Holt in the American volume on *The New Realism*, especially p. 358. See also Macintosh's *Problem of Knowledge*, pp. 240–58.

[2] Mr. Broad, in his *Perception, Physics, and Reality*, has some good remarks on this subject. See especially p. 71.

been called tertiary qualities, such as pleasantness or beauty, as well as to primary and secondary qualities.[1] All this is well brought out by Dr. Bosanquet in his Adamson Lecture; though I think he rather overstates the dependence of qualities on the mind by which they are apprehended. I may add that I am not sure that Professor Nunn really seeks to maintain anything essentially different from the view that I have been trying to set forth.

6. *Mechanical Unity.*—Things, as we have noted, are in causal relation with one another; and the simplest form of such relation would appear to be that which is described as mechanical. The parts of a mechanical unity retain their characteristics as separate and persistent objects, while changing their relative positions. When, however, such movements affect the relations of minute parts of an object—as when a solid is transformed into a liquid or a gas—its general aspect may be so much transformed as to make it hardly recognizable as the same object. Such transformations make the transition seem easy to others of a more complicated kind—so easy that the early Greek philosophers were tempted to regard all transformations as being of this relatively simple character.

7. *Chemical Unity.*—The kind of unity that is called chemical appears to involve changes of a more complex character. Here two or more objects, differing in kind, become in combination a new object differing in kind from any one of them. The parts do not, at least in appearance, persist as separate objects, and can only be with difficulty recovered in their original form. It does not appear to be altogether easy to say when changes that take place in the properties of objects are rightly to be described as chemical. In changing from the solid to the liquid or gaseous state, bodies often undergo considerable alterations in some of their properties. Hence the early Greek philosophers were tempted to treat all changes as essentially mechanical. What are called the allotropic forms of some elements (such as oxygen and ozone) seem to present similar

[1] But see what is said below, Chapter VIII, § 10, and Book III, Chapter I, § 9.

difficulties. But the consideration of such problems is rather beyond our scope.

8. *Organic Unity.*—An organic unity, such as that of a plant, is still more complex. Some of the changes that take place in it appear to be capable of mechanical and others of chemical explanation. But the facts expressed by the terms growth and reproduction seem to be of a different order. At the same time, it is pretty clear that they do constitute orders. Growth is so continuous that the process of change is, in general, quite imperceptible; and in reproduction one type of organism gives rise to others of approximately the same type in continuous succession.[1] The doctrine of evolution has, however, led to the recognition that the succeeding members of this series are not of exactly the same type; and attempts have been made (especially by Mendel) to ascertain the laws by which these transformations are governed. With this we need not here concern ourselves. The essential point to be noticed in an organic unity is that we have here a system which cannot be explained in a purely mechanical or chemical fashion. Kant appears to have been the first who made a clear distinction between such a unity and a unity of a merely mechanical type. He brought this out in his *Critique of Judgment*, where he urged that even so simple a thing as a blade of grass could not be adequately dealt with on purely mechanical principles.[2] We can only interpret organic beings by recognizing a certain vital unity by which the parts are bound together, and subordinated to the perpetuation of the individual and the species.[3] What has been stated in the preceding chapter with regard to the conservation of energy may help to show that the recognition of this does not really imply any violation of that

[1] The uniqueness of life in these respects has been well emphasized, among others, by Count Keyserling. See his *Prolegomena zur Naturphilosophie*, V.

[2] Kant's doctrine on this subject is elaborate and perhaps not altogether clear. For a full discussion of it, reference may be made to Mr. R. A. C. MacMillan's book on *The Crowning Phase of the Critical Philosophy*. See especially p. 256.

[3] We shall have to notice later (in Chapter VII) the way in which the conception of organic unity may be applied to human societies. Another interesting use of the conception in recent times is its application to values by Dr. G. E. Moore, in his *Principia Ethica*, especially chapter i, §§ 18–20. See below, Chapter VIII, § 10.

principle. Even Professor Ostwald, who is generally regarded as one of the most uncompromising upholders of that doctrine, states [1] that "there are undoubtedly a great number of special uniformities, with reference to which the principle of energy has no demand to make, except that they shall not contradict it." Such an admission seems to be all that is really necessary for the recognition of special modes of unity, the peculiar nature of which is not explained by mechanical principles, but in which these principles are not violated. It is all that is demanded, for instance, by such a statement as that of Professor Driesch : [2] "The actual organism, as it offers itself to observation, is certainly a combination of singularities, each of which may be described in terms of physics and chemistry, like a machine, and also all changes in these singularities lead to results which may be so described, but the reason of the *origin* of the combination and of all its changes is not a law or any combination of laws taught us by physics and chemistry." It would seem that, just as pure mathematics cannot explain physical changes, and just as pure physics cannot explain chemical combinations, so pure chemistry cannot explain the behaviour of plants and animals ; nor can pure biology explain human thought and choice. But there does not appear to be any ground for saying that what takes place in the modes of unity involved in the higher existences contradicts any of the principles that are contained in the lower.[3] All that can rightly be maintained is that the higher is not *explained* by the lower ; that it can neither be resolved into the lower nor anticipated from the study of the lower ; and that, if we are to recognize an evolution from the lower to the higher, we must admit that it is, in M. Bergson's sense, "creative" ; or, as Dr. Bosanquet is fond of putting it, that the stream rises higher than its source.

[1] *Die Philosophie der Werte*, p. 67. See also what is said by Professor Höffding on the "concentration and organization of energy," as distinguished from its increase (*Modern Philosophers*, p. 13).

[2] *Science and Philosophy of the Organism*, pp. 137–8. Some of the other statements of Professor Driesch are more open to question. For some criticisms on them, reference may be made to Professor Pringle-Pattison's *Idea of God*, pp. 77–80.

[3] See also Taylor's *Elements of Metaphysics*, pp. 291–2.

9. *The Unity of the Material System.*—Mechanical, chemical, and organic unities may all be called material, at least if we confine the term "organic unity" to plants. The presence of consciousness in men and animals, though closely connected with the material system, introduces an element so different from the others, and of such fundamental importance, that it has to be regarded as raising us to a different plane. Now, what has to be observed of the material system in general is that, though it may be regarded as consisting of a vast number of distinguishable objects, it yet presents itself to us as a single whole, in which each distinguishable object has a definite temporal and spatial position relatively to others. Thus we are led to think, as Kant so strongly insisted, of a single all-embracing time and space, in which changes take place. It seems clear that protensive and extensive magnitude are not necessarily thought of in this way. A spiritual object, such as a poem, has a before and after in its parts, and may refer to objects having extensive magnitude, such as figures of gods and heroes; but the before and after and the side-by-side-ness here involved are not necessarily placed in any definite position relatively to the objects in the material system. The causal relations, however, that subsist between material things, lead us to place them all in definite temporal and spatial relations. On this point Kant appears to be right. It would seem further that most, if not all, of the changes that take place in the material system can be connected with movements in a uniform three-dimensional space. Hence, although there does not appear to be any definitely assignable reason for regarding extensive magnitude as being limited to three dimensions, yet it is only in three dimensions that we place material things, and we appear to be hardly capable of thinking definitely of any further dimensions. It should be added, however, that our apprehension even of a third dimension presents considerable difficulty, and tends to be somewhat vague. To this we may have occasion to refer further at a later stage.[1]

10. *The Unity of Consciousness.*—The modes of unity that have so far been noticed require, for their fuller treat-

[1] See Book III, Chapter I, § 6.

ment, the study of the special sciences, especially mathematics, physics, chemistry, and biology. When we pass to the facts of conscious life, we come more definitely to the province that falls within the scope of philosophy. Psychology and sociology are, indeed, also special sciences; but they are sciences in which the problems can hardly be discussed without reference to the general conception of the universe. Hence a more detailed consideration of these modes of unity is called for here, quite apart from the fact that their greater complexity necessitates a more extended survey. For the present, therefore, a few general observations must suffice.

An animal, like a plant, is an organic structure; but it is a structure that has a more or less definitely developed centre of reference, at which the unity of its life is focused and in some degree controlled. Now, it is from such a centre that we necessarily set out, not only in the study of philosophy, but in all other studies as well. It is objects as apprehended at such a centre that supply us with all the materials of our knowledge; and it is by processes at such a centre that these materials become organized into systems of science and philosophy. Hence the question presents itself here, how far the facts already considered, and any other facts that we apprehend, are to be regarded as dependent upon or affected by the general character of the focus at which they are apprehended. It is chiefly for this reason that the larger problems of philosophy are inevitably introduced at this point.

11. *Social Unity.*—It has further to be noted here that the unity of the individual consciousness leads very directly to a social unity. Even in plant life, as we have noted, the individual organism is not separate from a larger whole. There are many organisms forming a more or less continuous order of beings similar in structure but gradually changing. Conscious beings become gradually aware of their relations to this larger system. Most animals are aware of one another. They are in some degree conscious of their relations to the special group with which they are most intimately connected, and their behaviour is to a large extent guided by this con-

sciousness. In human beings the consciousness of the group, and the control of the individual by it, become still more conspicuous. This will have to be considered with some detail, though the fuller study of it belongs to the special science of sociology.

12. *Spiritual Unity.*—In human beings, however, the group consciousness leads to more intimate forms of unity. The consciousness of their relation to a larger whole enables them to realize more fully their own individual nature, and to apprehend themselves as persons among other persons, having a certain community of interests, and moving towards the accomplishment of common ends. In connection with this the important conception of value becomes prominent. They become aware of final causes. The ideals of truth, beauty, and goodness begin to dominate their consciousness. They seek to understand the universe within which they find themselves, to discover meaning and purpose in it, and to interpret it as a whole. They are thus led to the conception of a unity to which they belong, larger than that of the group with which they are most closely connected. They pass from the family and tribe to the State, from that to humanity, and from that to the universe in general.

13. *Cosmic Unity.*—We are thus led to the final form of unity—that of the universe regarded as a system. Here the problem presents itself, how far the universe that we apprehend can be regarded as a Cosmos or perfect order. In connection with this many difficulties present themselves, which, however, we need not here anticipate. We have first to consider the unity of consciousness, passing on from that to social unity, and from that to spiritual unity, in connection with which the general conceptions of value and freedom will have to be discussed. It is only after these have been dealt with that we shall be in a position to consider the conception of a Cosmos. Before proceeding to the consideration of these, however, it seems desirable to add some remarks on the general relations between different modes of unity.

114. *Relations between Modes of Unity.*—It would evidently be a mistake to think of the various modes of unity to which reference has now been made as being quite separate and independent of one another. The objects, for instance, that are comprised in a mechanical system are themselves unities of distinguishable qualities. In a chemical unity also some of the characteristics of the separable elements—especially their quantitative aspects—retain their full force in the combination. Similarly, in an organic unity, though the parts are bound together by their vital relations to the whole, the operation of mechanical and chemical laws is not entirely superseded. Conscious life, in like manner, while it brings the purely organic functions under a new system of control, does not interfere with the operation of these functions. Nor does the social unity of conscious beings annul the mental operations of the individuals who are comprised in it. And, if it is possible to think of the universe as an interconnected whole, we may expect to find that, within that whole, the various subordinate modes of unity retain their full significance. Hence we shall naturally be somewhat suspicious of any doctrine of the cosmic unity which represents it as a supersensuous Absolute that, like Saturn, devours its offspring. The consideration of spiritual unity, however, and of the unity of the cosmos must be deferred to later chapters. In the meantime, a few further remarks about organic unity may be serviceable.

While it seems to be true that an organic unity is rightly contrasted with the lower forms of mechanical and chemical unity that are absorbed in its constitution, it is easy to exaggerate the extent to which these modes of unity may be held to disappear or to be transformed in its constitution. The following statement by Green, for instance, seems to contain such an exaggeration. "The constituent elements in an organism," he urges,[1] "can only be truly and adequately conceived as rendered what they are by the end realized through the organism. The mechanical structure organic to life is not adequately conceived as a machine, though, for the purpose of more accurate examination of the structure in detail, it may be convenient to treat it as such. And, for

[1] *Prolegomena to Ethics*, Book I, chapter iii, § 79.

a like reason, the state of the case in regard to a man is not fairly represented by saying that, though not merely an animal or natural, he is so in respect of the processes of physical change through which an intelligent consciousness is realized in him. In strict truth the man who knows, so far from being an animal altogether, is not an animal at all, or even in part. The functions which would be those of a natural or animal life if they were not organic to the end consisting in knowledge, just because they are so organic, are not in their full reality natural functions, though the purposes of detailed investigation of them—perhaps the purpose of improving man's estate—may be best served by so treating them. For one who could comprehend the whole state of the case, even the digestion that served to nourish a brain, which was in turn organic to knowledge, would be essentially different from digestion in an animal incapable of knowledge, even if it were not the case that the digestive process is itself affected by the end to which it is mediately relative." That the digestive process, as well as other animal functions, can be to some extent influenced and controlled, both directly and indirectly, by consciousness, seems clear enough ; but surely, in itself, it is essentially the same process in the man as in the animal, in the sage as in the savage. The conscious or spiritual does not appear to transform entirely the material or natural, but only to control and guide it.

The recognition of this becomes perhaps especially important when the conception of organic unity is applied to the relations between human beings in a society. It would seem, as we shall have to notice shortly, that such an application is legitimate ; but it is important to bear in mind that, when it is applied in this way, it does not mean that nothing that is simply mechanical is to be recognized within the social unity. The very word "mechanical" has reference primarily to structures that exist only within human societies. In its original sense it applies to objects that are used as means or instruments for the attainment of some specific end ; and it has been subsequently applied to the movements of any objects that appear to be externally controlled by other objects, or to find their explanation in some purely external relation.

Machines are, in general, mechanical in their operations both in the original and in the derived sense ; though, as distinguished from tools, they are capable of carrying on certain kinds of movement without the continuous exercise of external control. They are means for the realization of particular human purposes, on the one hand ; and, on the other hand, they operate in accordance with mechanical—and sometimes chemical—principles, and illustrate the working of such principles in very definite ways, though they are constructed and controlled by thinking beings, and adapted to serve the ends of individual and social life. Similarly, in the operations of war, and other activities of the State, it is only the subordination to social ends that prevents us from regarding what takes place as simply mechanical. But we are anticipating in referring to this subject at the present point.[1] It is now time for us to pass to the more definite consideration of the unity of consciousness.

[1] See Chapter VII, § 9.

CHAPTER VI

THE UNITY OF CONSCIOUSNESS

1. *General Nature of Consciousness.*—Consciousness, or the awareness of objects, can hardly be defined or described in terms of anything with which we are more fully acquainted than itself; yet something may profitably be said about it in relation to other modes in which objects are combined. When objects, such as colours, are consciously apprehended by a particular individual, their distinctive features are preserved, but they are combined with one another in ways that are not simply spatial or temporal or causal or vital, but in relation to an individual focus. The following characteristics appear to be specially noteworthy in this mode of unity: (1) Consciousness admits of degree: we may be more or less aware. This degree has to be distinguished from the intensity of the particular object that is apprehended, such as the brightness of a colour or the loudness of a sound. (2) Consciousness has a place in the time order, and is also connected with a special position in space. (3) In its relation to time it has *real duration.* The "specious present" is not a mere point; and what belongs to a past mode of consciousness is not, in general, altogether lost. This aspect of consciousness also admits of degree. The range of the present may be more or less wide. (4) The element of valuation enters in. We like certain objects and dislike others; and this also admits of more and less. (5) The final cause becomes efficient. The valuation of objects leads to changes in our relations to them.

The significance of these characteristics will, it is hoped, become more apparent as we proceed.

2. *Sense in which Things are in Consciousness.*—We have already called attention to the ambiguity in the word

"in." That in a certain sense the objects that we apprehend are in consciousness is clear—viz. the sense in which to be "in" means to be apprehended. In this sense every object and relation and mode of unity of which we have any direct knowledge may be said to be in consciousness. The objects that we apprehend can, however, be distinguished from the fact that we apprehend them. But if we go on to ask whether such objects can be regarded as wholly separable from the fact that they are apprehended, it is not so easy to find a satisfactory answer. If the universe as a whole is a connected order, it would seem that no object can be regarded as wholly separable from the whole to which it belongs; and the more comprehensive the unity with which we are dealing, the less can what enters into it be separated from it. An eye is a part of an organism; and it can hardly be said to be an eye when it is removed from the organism, though some of its characteristics may still remain. All the things that we know are known by being in some way consciously apprehended; and it is hard to say what would be left of them if they were not thus apprehended. What is specially characteristic of conscious apprehension as such—valuation and all that connects with that—could hardly be supposed to remain unaffected if the object were separated from every form of conscious apprehension. On the other hand, space, time, and number can hardly be supposed to belong specially to any particular consciousness. Sensible qualities, such as colours and sounds, fall between these groups. Hence there is some real ground for distinguishing between primary, secondary, and tertiary qualities in this respect. This is, however, a subject to which we may have to return later. In the meantime, it may at least be stated that the sense in which space or sound is contained in a particular consciousness is very different from the sense in which intensity or pleasure is contained in it.

3. *Contemplation and Enjoyment.*—Reflection on the distinction between what is rightly referred to the conscious centre and what is rightly referred to particular objects that are apprehended, has sometimes led (as, most notably, with Descartes) to a definite philosophical dualism. The latest

form in which the distinction has been emphasized is that adopted by Professor Alexander,[1] who describes the apprehension of distinct objects as the *contemplation* of them, while that which is properly referred to the conscious centre is said to be *enjoyed*. It is difficult, however, to regard such a distinction as absolute. What seems specially to belong to the conscious centre is simply the fact of apprehension, with its various degrees. Other things are more or less definitely contemplated and referred to objects. Even pleasantness and unpleasantness seem to involve the contemplation of particular objects and the valuation of them—a valuation which, on reflection, becomes more and more objective. Organic pain, in like manner, is referred to certain parts of the organism, and may be said to be contemplated as belonging to these parts. So with temperature, strain, taste, smell, sound, colour, and similar experiences. They are all enjoyed, in the sense that they are apprehended as belonging at a particular moment to the conscious centre. But they are also contemplated, in the sense of being given an objective reference. Pure universals and orders would seem to be the only things that are not, in any way, apprehended as belonging to particular conscious centres; and the pure characteristics of awareness as such seem to be the only things that belong simply to a conscious centre as such. All other objects of apprehension seem to be properly referred both to a conscious centre and to an object distinguishable from it.

4. *Consciousness of Self.*—The question, in what sense we can properly be said to be conscious of the centre of consciousness itself, is one that presents some difficulty. In general, what we apprehend is particular objects; but it is certainly true that, as reflection develops, we become aware of these objects as belonging to a unity which is distinguishable from them, and which has a certain continuity and persistence. How the subject thus apprehended is properly to be thought of, we shall have to consider in a following chapter.

5. *Immediate and Mediate Apprehension.*—Our apprehension of an object may be more or less direct. When we

[1] See his article in *Mind*, January 1913.

actually experience pain, the pain is so definitely there that it cannot be doubted. Similarly, a sound, a colour, a smell, etc., may be directly and indubitably apprehended. On the other hand, the reference of a particular object to a universal or order is more indirect. Even to recognize that this particular experience is a pain, is to group it with others that are not directly present. Similarly, to regard a colour as having a definite place in the colour scale, as belonging to a particular coloured body, as caused by special modes of vibration affecting the eye, the optic nerve, etc., all these processes carry us somewhat away from what is directly present. Most of our knowledge is of this indirect kind. Here also we have to recognize degrees. Though something is not directly present, it may be something with which we are acquainted ; or it may be something that is implied in what we directly apprehend or are acquainted with ; or, on the other hand, we may only know it by description. Thus, we directly apprehend sensible qualities ; we are acquainted with persons ; causal relations are implied ; the existence of people whom we have never met, especially those in remote times and places, is only known to us by description.

6. *Quantitative Aspects in Consciousness.*—It appears, from what has now been noted, that there are several ways in which there may be more and less in the facts of our conscious experience. The quantitative aspects of the objects of which we are conscious have already been referred to. The process of consciousness itself seems to have extensive, protensive, and intensive magnitude, and perhaps also degrees of approximation to a perfect type. The intensive magnitude of consciousness is the most obvious. It is what we express by saying that we are wide awake or half-asleep. It is probable that the consciousness of an oyster, in comparison with ours, is always in this sense less : it lacks vividness of apprehension. There does not appear to be any definite limit to this kind of magnitude. However wide awake we may be, it seems possible that we might be still more vividly awake. It would seem to be this kind of magnitude that Descartes meant by " clearness." It is quite different from the intensity of the object. We may be vividly aware of a dim light, a

faint sound, or a slight pain; and we may have only a feeble consciousness of a bright light, a loud sound, or an intense pain. The more purely subjective our experience is, however, the more does this distinction disappear. The intensity of a pleasure seems to mean simply the vividness with which it is apprehended—except when it is a remembered or anticipated pleasure, in which case we have to distinguish between the pleasure that we remember or anticipate and our present enjoyment of it. What Descartes calls "distinctness" seems to be different from this. We may be vividly aware of ten purple points arranged in a certain order, and yet not be definitely aware either that they are ten or that they are purple or that they are in that particular order. This is a qualitative difference. It is chiefly in this respect that the human consciousness is in general superior to that of the lower animals. But there may be more or less of this qualitative difference. It represents relative superiority in the power of discrimination. Besides these two modes of more and less, it seems clear that consciousness has protensive magnitude. A conscious process goes on throughout a certain time. The extensive magnitude is hardly less apparent; but it has to be borne in mind that it does not mean spatial magnitude. What is called the "span" of consciousness is largely temporal—i.e. the objects apprehended in it are before or after one another. But they are apprehended together in what has been called [1] the "specious present." The range of this may be greater or less. A man who is blind would have less range in one respect than a man who can see; one with little retentiveness or little imagination would have less than one who was more fully endowed in these particulars. Thus it would seem that there are several ways in which consciousness may be more or less.

7. *Attention.*—The fact expressed by the term "attention" appears to be closely connected with the quantitative aspect of consciousness. What is vividly present to consciousness is said, in the widest sense of the word, to be

[1] James, *Principles of Psychology*, vol. i, p. 609. See also Royce, *The World and the Individual*, vol. i, pp. 420–2; vol. ii, *passim*, especially pp. 123–6.

attended to. One who is nearly asleep is not attending to anything. But one may be awake to certain things and not to others. One may be awakened by a loud noise or by becoming aware that it is time to rise. In the former case it would seem that the intensity of the object leads to vividness of consciousness: in the latter case the vividness of consciousness is due rather to a subjective interest. The primary meaning of attention, then, would seem to be simply that certain objects are vividly apprehended; but we generally mean also that the objects become not only vivid, but distinct; and this will at least usually involve a definite process of consciousness directed in a particular way. In order to understand this, it is necessary to inquire what is to be understood by feeling, interest, and activity.

8. *The Nature of Feeling.*—The term "feeling," like so many others that we have to use in philosophy, is somewhat ambiguous. It is applied generally to modes of apprehension that lack distinctness. It is thus contrasted with definite knowledge. We feel that something is true when we vaguely apprehend it, without being able to prove it. Those modes of sense-apprehension that are least perceptual are often referred to as feeling—e.g. temperature, smell, pressure. They are contrasted with the definitely perceptual apprehension that we get by means of sight. Even the vague knowledge that we get of things around us by pressure or contact is often called feeling. But the term is specially applied to those experiences that are most purely subjective, of which the sense of agreeableness or disagreeableness is the most conspicuous. This is, more definitely than anything else, an "inner sense," an apprehension of our own attitude towards things, rather than of anything that we can properly refer to objects. Yet it is not without objective reference. It is particular objects that we regard as agreeable or disagreeable, and in so regarding them we are applying a standard that is not purely subjective. This standard is best described as that of value; but in pure feeling we apply the standard without any distinct apprehension of it. Any other standard may be applied in a similar way. We may feel that a large number of objects are before us without

counting them : probably many animals are aware of numbers in this way. Similarly, we may feel that a temperature is high without giving it any definite place in a scale. We may feel that an argument is convincing, without being able to set it forth in a definite logical form. And so in many other cases. The reason why valuation stands out as in a very special sense the sphere of feeling seems to be that the ultimate standard of value is peculiarly difficult to apprehend, so that it is always felt rather than known.[1] This we shall have to notice more definitely in a following chapter.[2] In the meantime, we simply note that what is specially meant by feeling, as the term is used by most modern psychologists, is the simple attitude of liking or disliking, in those cases in which we cannot say "I like this because of that," but rather, as in the case of the celebrated Dr. Fell, when we have to confess "The reason why I cannot tell."

9. *The Meaning of Interest.*—Interest is closely connected with feeling, in the sense that has just been referred to. It is a mode of valuation in which the ground is partly apparent. When we are interested in things, we like them ; but, to some extent, we know why we like them. We are at least able to express our liking in general terms. We like this or that thing ; we are interested in things of this or that kind. It follows also that interest is not a merely momentary experience, as the simplest forms of liking are : it is a persistent attitude of valuation. This also will have to be considered more fully in a later chapter.

10. *Mental Activity.*—We now come to a subject of great importance, and one that has been a source of much confusion. Mr. Bradley has rightly said that the treatment of activity has been a scandal in philosophy. His own attempt to explain it, however, is not very satisfying. The "expansion of self" is a vague and not very intelligible phrase.

[1] The objective aspects of feeling have been well brought out by Professor J. A. Smith in a paper published in the *Proceedings of the Aristotelian Society*, vol. xiv. I cannot, however, agree with his paradoxical contention that painful feeling is properly absence of feeling. Just as Black and Cold are experienced as positive, though connected with physical facts that may be called negative, so I think, the experience of what is painful is as truly to be called feeling as the experience of what is pleasant.

[2] Chapter VIII.

Activity in general has already been referred to in connection with causation. To be active is to be efficient; but we saw that it is difficult to give any definite meaning to efficiency; and that those who attempt to give such a meaning are generally led to mental activity as that in which the meaning can be most definitely seen. Now, when the mind is active we certainly do find something that may be called efficiency; but we have to try to discover exactly what it is. In order to see this it will be well to return to the subject of attention, in which recent psychologists have sought to discover what is most definitely characteristic of mental activity.

We have noticed that attention means primarily intensity of consciousness, which may mean either degree of clearness or degree of distinctness or both. Now, degree of clearness seems to depend on general wakefulness; and this, as we shall note more fully later, seems to depend largely on organic conditions. Degree of distinctness is more dependent on the attitude of consciousness itself. But the fact that any particular object becomes distinct may be partly due to its objective character. A loud sound or a bright light or a sharp pain becomes distinct much more readily than a faint, dim, or dull one. In so far as distinctness is dependent on such purely objective conditions, it is generally said to be involuntary; and this kind of attention does not involve much that can be called activity in any special sense. But usually attention is dependent on interest—i.e. on valuation; and it is in such cases that it seems to involve mental activity. Voluntary attention seems to mean distinctness brought about by valuation. If our interest is purely cognitive, it is attention and nothing more. But usually our interest is in things that are not immediately present, but have to be brought about by a causal process. Valuation is then the first step in a series of changes. In other words, we have a case of change brought about by the apprehension of a final cause; and this appears to be what is properly to be understood by mental activity. This point, however, will have to be further considered in connection with the question of freedom.[1]

[1] Chapter IX, § 1. See also above, Book I, Chapter III.

11. *Faculties of Mind.*—That in a certain sense there are distinguishable faculties in our conscious life, is too obvious to need insisting on. It is especially apparent when any of them chances to be lacking. The lower animals appear to be incapable of definite processes of reasoning and the kind of conscious choice that is connected with this. It is probable that most of them have not the power of retaining and calling up free imagery. There are also great differences among human beings in these respects. Some have little power of consecutive reasoning: some lack strength of volition: some are deficient in visual imagery: and so forth. Again, some are incapable of apprehending colours: others are inaccessible to sounds or smells: others are more or less defective in other respects. Most of these deficiencies are connected with defects in the organs of sense or the nervous system or with imperfect development of portions of the brain. It is clear, then, that there are many faculties in respect of which conscious beings may be more or less fully endowed. The objections that have been made to the recognition of this have come mainly from psychologists who have sought to reduce all consciousness to one level—usually sensation or feeling. Sometimes, however, the objection is only an exaggerated protest—such as we find in the writings of Carlyle—against the attempt to split up the unity of conscious life into a number of separate elements. That this has sometimes been done is not to be denied. The earlier forms at least of phrenology seem to have been guilty of it; and some forms of common-sense psychology are open to the charge. Aristotle cannot, I think, be fairly criticized on this ground. Plato, who recognizes a smaller number of faculties, is perhaps justly to be charged with having cut them off too sharply from one another. A similar charge may also be made against many recent psychologists, who have distinguished different aspects of consciousness in a way that seems to place an impassable gulf between them.

The threefold division into knowing, feeling, and willing is the best known. It was not invented by Kant; but it was he who first gave it currency. Yet Kant himself recognized that knowing involves selective activity, and so cannot be altogether separated from choice; and the relation

between feeling and willing is so obvious that they have recently been grouped together under the conception of interest. What seems to be mainly responsible for the separation of these faculties is the unique position occupied by the apprehension of value.[1] To value seems to be an attitude of mind towards what it apprehends, and so seems to be distinct from the simple fact of apprehending. But, as Brentano urged, to believe is also a distinct attitude of mind, and yet seems clearly to be a mode of knowing. To apprehend objects as having value is surely a mode of apprehension. It is a very important mode, especially in view of the fact that it plays a conspicuous part in the formation of interests, and through them on the concentration of attention and the carrying out of movements. But it seems clear that every fact of consciousness is a mode of awareness or apprehension. Feeling and activity cannot really be regarded as something essentially different. The account of activity given in the preceding section ought to help to make this clear.

12. *Stages of Conscious Growth.*—It remains true that the modes of our conscious experience are highly complex; and that we can distinguish conscious centres as more or less fully developed, and more or less fully equipped. Even among human beings it seems clear that a highly civilized and cultivated person has certain powers more fully developed than an uncultivated savage, though the latter may also be superior in certain respects. In general it would probably be true to say that the savage has more vividness in some of his apprehensions of sensible qualities, but less completeness in the power of intellectual discrimination, especially in the definite apprehension of universals and orders. A similar difference is still more conspicuous when we pass from the human consciousness to that of various types of animals. The doctrine of evolution naturally leads us to view the relations between these different types as an ascending scale. Looking at them in this way, it seems to be true to say that the lower forms of conscious life are without any definite apprehension of universals and perhaps apprehend nothing but sensible qualities very vaguely related to one

[1] For the discussion of this, see Chapter VIII, especially § 6.

another. This may be called the stage of mere sensation. It is pretty certain, however, that all the higher animals apprehend sense qualities as connected together in the unity of more or less permanent objects—i.e. they have not merely sensation, but sense-perception as well. The power of recalling and anticipating such perceptions by means of free imagery is probably of later growth; and the power of using such imagery as a means of singling out and relating universals appears to be a specially human faculty. Thus it seems right to distinguish four main stages in conscious growth.

13. *Genetic Treatment of Psychology.*—The recognition of such stages in conscious growth as succeeding one another in the process of evolution, has naturally led to the attempt to study psychology genetically—a method that was to a certain extent anticipated by Aristotle. It has to be borne in mind, however, that the possibility of such a mode of treatment is dependent on the knowledge that we have of the somewhat fully developed modes of apprehension that we ourselves possess. Lower stages of conscious life become intelligible to us only by the omission of some of the characteristics of our own consciousness. We can in some measure understand the peculiarities of animal life by supposing that they lack some of the modes of apprehension that we have —more particularly the definite discrimination of universals. Sometimes, it is true, it may also be necessary to suppose that they excel us in certain respects—e.g. in the vividness with which certain sensible qualities are apprehended and possibly even in the possession of certain forms of sensibility that we lack. Yet it remains true that we have, on the whole, to start from the higher level and go down to the lower. It is also true, however, that the attempt to go down to the lowest stages helps us to analyse the distinguishable elements in our own apprehension more completely than might readily be possible without such a descent. It helps us to recognize that some of the aspects of consciousness with which we are familiar might be lacking without the total disappearance of consciousness; and this enables us to see more clearly what it is that is contributed by these

aspects to the development of our mental life. It helps us to distinguish, more clearly than we otherwise could, between the lower and the higher aspects of our conscious life, and so to recognize the essential nature of what was described by Heraclitus as the "upward path." But there is a danger that, in thus going back to the simpler stages, we may be led to suppose that the more highly developed can be explained by the lower. This was the error into which Herbart and those who are commonly described as Associationists appear to have fallen; and it may be doubted whether more recent treatments of genetic psychology are wholly free from it. It is an error to which the theory of evolution in general is liable; and, as we have already noted, Professor Bergson has done valuable service in protesting against it, and maintaining that evolution is really "creative," in the sense that the later stages cannot be said to be contained in the earlier. They do, however, develop from the earlier in a more or less definite order.

14. *Mind and Body*.—It has been noted at various points that our conscious life is closely related to the organism in connection with which it grows up. Our modes of sensible perception seem to be clearly dependent on the presence of definitely formed organs, including an elaborate nervous system and brain structure. Mental activity also leads to various forms of bodily movement. It is now time that we should consider more definitely how we are to understand the connection between modes of conscious process and modes of bodily movement.

We may first notice the ambiguity that is involved in speaking of consciousness as "in the body." All that we seem to be entitled to say, as Descartes rightly emphasized, is that consciousness is properly referred to certain parts of the bodily organism. His attempt to connect it with a certain point in the brain is now known to be erroneous; but there is a sense in which pain is rightly referred to a tooth or foot or other parts of the organism, in which the apprehension of colour is rightly referred to the eye, of sound to the ear, and in which consciousness in general is rightly referred to the structure of the brain and nervous system. Any injury

to these parts of the organism or any deficiency in them deprives us of some element in our apprehension of objects or seriously vitiates it; and with the actual loss of any important organ wisdom may be "by one entrance quite shut out." It seems right, therefore, to say that there is a causal relation between changes in the organism and conscious processes. Nor is it less clear that conscious processes react upon the organism. The strenuous activities of a Napoleon, the more restrained movements of a Newton, as well as the more commonplace motions of ordinary human beings in their everyday life, cannot be accounted for without reference to conscious purposes. Napoleon, indeed, is said to have declared, "People speak of me as if I were a person: I am not a person, I am a thing"; but this is a pretty obvious exaggeration. His actions have to be partly accounted for by the pressure of circumstance, but that pressure would not be effective without the intervention of his own choice. All this is so apparent that it is only by some sort of sophistry that it can be questioned. It has, however, been questioned, and we have to notice the reason.

Here, again, we can discover the reason most definitely by referring once more to Descartes. It was the dualism of Descartes, together with his peculiar view of causation, that led to the denial of any definite causal relations between mind and body. He conceived, as we have seen, that causation could only be definitely understood by supposing that the effect is already contained in the cause. Now, in the material system it seemed possible to interpret causation in this way, by maintaining that it is simply to be understood as continuity of motion. There is always, he thought, the same amount of motion, estimated in a particular way, in the physical system; so that it may be held that in physical causation there is never anything new; and this applies to organic structures as well as to other material things. But clearly conscious process is not spatial movement. Hence we cannot regard any physical change as the cause of a conscious process, or any conscious process as the cause of a physical change. The conscious system and the material system have to be regarded as two different worlds, between which there cannot be any causal relations.

But this doctrine of Descartes is really a *reductio ad absurdum*. The essential nature of the conscious system, according to him, is thought: that of the material system is extension. But, if this were so, and if these were the only two systems in being, there would be nothing to be extended and nothing to think about. Colours, sounds, smells, and so forth, are neither space nor thought. There is no room for them in Descartes' philosophy. Nor is there any room for the consciousness of animals, which do not think. Hence the animals have to be regarded as automata; and colours, sounds, smells, etc., have to be regarded as somehow arising from the union of consciousness with a part of space. The latter view at least is clearly unintelligible. It seems clear that in the philosophy of Descartes nothing exists but pure thought and pure space. But space as such cannot be supposed to move. What moves must be something that changes its position in space. Similarly, there is, it would seem, nothing to think about except the pure self, which also cannot be supposed to change. Hence there cannot be either a material process or a conscious process. This is evidently a *reductio ad absurdum*; yet it is really on this view that all the supposed difficulties about causal relations between mind and body appear to rest.

It is often said that the modern doctrine of conservation of energy presents the same difficulty as that suggested by Descartes; but this seems to be entirely erroneous. It only appears to do so when it is interpreted after the Cartesian fashion. For the modern doctrine does not involve either that there is nothing but pure space in the material system or that the quantity of motion in that system is always the same. According to that doctrine, actual motion has to be distinguished from potential motion, and qualitative differences in the things that move are not denied. A physical organism, according to this theory, contains a certain amount of potential energy. So does a machine. So does one of the heavenly bodies. But the organism or the machine may be at rest; and the heavenly body might also come to rest. All that is maintained is that, when they are at rest, there is the possibility that they might be set in motion again under certain circumstances; and that the amount of motion,

estimated in a certain way, that might then be produced, is an amount that can be definitely calculated. The heavenly body might be set in motion by the impact of another body. The machine might be set in motion by the accidental (i.e. non-purposeful) turning of a valve. The organism might be set in motion by an act of choice leading to nervous change. What happens in all these cases is that the possibility of movement becomes actualized. When this happens, not only is there a definite amount of movement generated, but the kind of movement is also that for which the particular body is adapted. How any of them takes place, we cannot explain except by saying that it is in accordance with the general structure of the material universe.[1]

If the view of causation that has been already set forth is correct, there is no more difficulty about the causal relations between mind and body than about any other case of causal relation. The only circumstance that distinguishes it from other cases is that here the particular fact which we call consciousness is definitely present, whereas in describing other cases we have only to refer to other facts, such as attraction or repulsion, vibratory movements, electrical disturbances, chemical transformations, vital functions, and so forth. Whether any of these imply consciousness, is another question. In dealing with thinking beings, at any rate, we have to recognize the definite presence of consciousness, and, with that, the presence of the final cause—i.e. choice or valuation. To this we must refer further in succeeding chapters (VIII and IX).

It might be thought that the view of causation that has been here adopted rendered it of no importance whether we characterize the relation between mind and body as one of interaction or of parallelism. For, it may be said, all interaction, according to our view, means no more than parallelism.

[1] The various theories of the relation between mind and body are well set forth in Dr. McDougall's *Body and Mind*. Dr. Ward's *Naturalism and Agnosticism* may be referred to on the theory of Energy (vol. i, Lecture VI), and for a searching criticism of psycho-physical parallelism (vol. ii, Lecture XI). My own view is somewhat more fully explained in an article in *Mind* (October 1911). The treatment of the whole subject in Dr. Bosanquet's *Principle of Individuality and Value* (especially Lecture V) is highly instructive. Professor Strong's book, *Why the Mind has a Body*, is also worth referring to. So is Ostwald's *Natural Philosophy*, pp. 143–4.

It seems to me, however, that this is not quite true. According to the view that I have tried to explain, a cause is an organizing principle ; and, in considering the relation between mind and body, we have to ask whether any such principles can be discovered. It seems clear that in any case of volition there is such a principle. Our volitions depend on our valuations ; and these constitute a pretty definite system. Some one (was it Cardinal Manning?) is said to have once mentioned to Huxley that, while he was walking along the street, he suddenly remembered that he wanted a pair of boots, and turned in another direction to get them. He asked Huxley whether he believed that this change took place independently of conscious choice ; and Huxley is said to have replied that he did. But surely it is true to say that the explanation of the change is to be found in the valuation of boots. There are many intermediate links ; but it is here that we find the moving principle. On the other hand, if I suddenly hear a clap of thunder, it seems clear that the moving principle implied in this change is to be found primarily in certain physical transformations not apprehended by me and remote from my organism. Hence we seem justified in agreeing with common sense (not an infallible guide, but one that should not be lightly disregarded) in thinking that in volition the essential causal principle is within our own conscious structure, while in sensation it is rather to be sought outside. Of course, in both cases there are many complications ; but if we look for the main organizing principles that are concerned in the changes that take place in the two cases, we appear to be led to the conclusion that has been indicated.

15. *Personality.*—A conscious being, then—at least such as we are familiar with in our ordinary experience—may be thought of as a physical organism partly affecting and partly controlled by certain modes of apprehension and valuation. Such organisms have a considerable degree of persistence, and undergo changes of a more or less complex character. The physical organism passes through various stages similar to, but much more complex than, those that can be studied in the lives of plants ; but these changes are to a con-

siderable extent affected by the processes of apprehension and valuation with which they are associated, and these are themselves subject to more or less extensive transformations. In the case of the lowest forms of animal life the latter changes are comparatively slight. They go on apprehending the same kinds of objects in regular succession, and reacting upon them in accordance with their inherited instincts. In the higher animals there is a certain amount of learning by experience and acquiring habits which sometimes overrule the instincts with which they start. But it is only in human life that there is anything that can properly be called history. What a human being apprehends is to a large extent retained, and he is able to a considerable extent to anticipate what is coming and to adjust his activities to it. His valuations also become modified by his accumulated experience. These changes react to some extent on the physical organism itself, especially in its more vital parts and those that are most directly related to his conscious life. He thus both persists and changes in much more complex ways than any other form of individual existence; and both his persistence and his changes are related to other beings around him in ways that are increasingly complex, so that his individual organism becomes a less and less prominent element in his life. This is what we understand by calling him a person. A person has interests that carry him far beyond his life as an organism. But they depend so much on interpersonal intercourse that we cannot properly deal with them until we have given some attention to the nature of the social unity to which the life of the individual is more and more closely related, and by which it is more and more profoundly affected.

CHAPTER VII

SOCIAL UNITY

1. *General Significance of Social Unity.*—In the general study of psychology, as Dr. Ward has urged, our point of view is primarily individualistic. It is the way in which apprehension and valuation develop at individual centres with which we are mainly concerned. The foundations of the modern study of the subject, in this sense, were laid by the line of individualists from Hobbes through Locke, Berkeley, and Hume. But if we were to end with the individual consciousness, our knowledge even of that would be extremely limited. The developed consciousness of the individual is essentially social. Our knowledge has been gained by co-operation; our tastes are moulded by social intercourse; our actions are directed to social ends. That this is true in human life is so obvious as hardly to be worth insisting on. The slightest reflection shows that, if we emptied our lives of all that is not simply our own, the residuum would be poor indeed. The self-centred individual would be indeed in knowledge a private person, an "idiot," or, as Goethe put it, "ein Narr auf eigener Hand": and, in action, all the higher values which are apprehended in self-devotion to large ends, to country, to humanity, to beauty, to ideal perfection, would be absent. On every side we see, without much philosophical investigation,

> **Unless above himself he can**
> **Erect himself, how mean a thing is man.**

But to see the precise significance of this is not so easy; and it is now our problem to inquire into it.

2. *Egoism.*—Many have tried to put themselves, temporarily or permanently, at the point of view of pure

individualism. In pure theory the position is shown by Plato in the person of Protagoras; in its practical application, in Thrasymachus. The Cynics and Cyrenaics illustrate it a little later. Descartes tried to adopt a purely individualistic position as his starting-point, and, as we have just noted, it was more consistently adopted by the line of thinkers from Hobbes to Hume. Rousseau adopted it very largely in his earlier writings. The earlier English economists were a good deal infected by it. In Germany it is represented, in an extreme form, by Stirner and Nietzsche. Such a position is not without value. Though the individual grows through his relations to the social unity, he also reacts upon these relations; and it is, in the end, important that he should be himself, as well as the child of his society. But it is with the latter aspect that we are at present concerned. The following considerations may help us to escape from the purely egoistic standpoint.

3. *The Escape from Solipsism.*—Here, as in so many other cases, we can hardly do better than set out from Descartes. We have already had occasion to notice his contention that our first certainty is that of our own conscious experience. From this he was led to affirm the reality of self; and he conceived that other kinds of reality are only indirectly derived from this. Berkeley, from the same point of view, urged that a thinking substance is the only kind of substantial existence that we know, or that we have a right to assume. It was against these views that Kant's "Refutation of Idealism" was directed. Kant urged that we become aware of persistent objects distinct from ourselves before we have any definite apprehension of the persistence of the thinking subject; and that our conviction of the latter is really based upon our apprehension of the former. Hume had already urged, in a clear and cogent way, that, if we observe our own conscious states, what we are primarily aware of is their incessant change, rather than their persistent unity. Kant pointed out that the apprehension of change implies the recognition of something that persists throughout the change; but he agreed with Hume in maintaining that we do not directly apprehend what it is that thus persists in our conscious

states ; and that we have a much more direct apprehension of persistence in the case of objects that we distinguish from ourselves. We watch a moving body, for instance, and are directly aware that, in changing its position, it maintains its self-identity. The persistence of a cannon-ball, a bird, or another human being, is much more obvious than the persistence of ourselves as conscious beings ; and it is by reflection on the former that we are able to think of something that persists in the latter. Kant emphasized this further in his treatment of what he called the " Paralogisms of Rational Psychology," where he urged that we have no sufficient ground for maintaining the persistent substantiality of the self. We might quite well suppose that the continuity of consciousness passes from one substance to another. Indeed, even Descartes did not really maintain the persistence of the thinking substance. He thought, as we have already noticed, that the thinking being is created afresh at every moment ; so that it is, in reality, always a fresh substance, though maintaining a certain continuity with the previous one. With these particular doctrines we are not at present concerned. We have only to note that the possibility of them shows the fallacy of Solipsism—the fallacy, that is, of the view that we have a greater certainty of the persistence of ourselves than of the persistence of objects distinct from ourselves. Later philosophers have emphasized the same point. In particular, those who are commonly called the " New Realists," though not denying a certain persistence of the conscious self, have helped to bring home to us that our apprehension of the persistence of other things is quite as direct. The genetic treatment of psychology tends powerfully in the same direction. It is natural enough for a highly developed reflective consciousness to believe that it is more fully aware of itself than of anything else ; but when we ask what sort of apprehension can be supposed to belong to more primitive intelligences, we see more clearly that consciousness of self can hardly be regarded as the kind of consciousness that is most direct and certain. An oyster, as Hume urged, can hardly be supposed to have much consciousness of itself ; and even beings a good deal higher in the scale are pretty obviously more vividly aware of the

objects with which they have to deal than of their own conscious states. Some reflections on this may help us to see more clearly the part that is played by the apprehension of the social unity in the development of the individual consciousness.

4. *Consciousness of a World of Things.*—It seems probable that some of the lowest forms of animal life are not able to apprehend anything more than some simple sense impressions, such as pressure, temperature, pain, and the like ; but it is pretty certain that all the higher animals apprehend persistent objects. Birds seem to recognize their nests and the materials that are necessary for their construction, as well as objects suitable for their food. The ox and the ass know their master's crib. Dogs and other intelligent animals seem clearly to recognize a great variety of things and various relations among them—such as size, nearness or distance, intervals of time between their recurring phases, etc. Among human beings also it is probably true to say that the apprehension of things distinct from themselves and persisting in definitely recognizable forms precedes any definite awareness of themselves, except that which is simply organic—such as the experience of hunger, thirst, pain, etc. Certainly most children display at a very early age an eager curiosity with regard to surrounding objects. The attitude expressed by R. L. Stevenson is probably characteristic of healthy childhood in general :—

> The world is so full of a number of things,
> I am sure we should all be as happy as kings.

But this obviously involves a social consciousness as well ; and I should suspect that the reflective touch is the most doubtful element in the expression. A very young child would probably enjoy the many objects around it without thinking much of its own happiness, and still less of that of others. Still, the social consciousness follows very readily upon the consciousness of a multitude of persistent objects.

5. *Consciousness of other Conscious Beings.*—How the consciousness of other conscious beings first arises, it is not altogether easy to determine ; but it would seem to be vaguely

present at very low stages of animal life. Perhaps it may at first mean little more than the apprehension of persistent sources of reaction. Things in general are simply acted upon. Food is eaten, nests are built, eggs are deposited and sat upon. But sometimes the objects apprehended by an animal are apprehended as reacting upon it. The young for which it instinctively cares cannot be simply handled. They themselves act in definite ways, responding to or resisting the activities of the parent. In the case of carnivorous animals the prey resists or attempts to escape. Those animals that are not carnivorous are, in general, preyed upon by others. Similarly, in mating, fighting, and other activities, the animal comes in contact with definite and persistent modes of reaction. Objects of this type must soon be pretty definitely discriminated from those of a more passive kind; and the animal's complex relations to them in various modes of action must serve to give it a more definite apprehension of its own organic being than it would otherwise have. In human life, at any rate, such modes of interaction become a very prominent part of the general conduct of life, and give rise to those complex modes of the apprehension of ourselves and others which are described by such terms as projection of self, introjection, and the like. We ascribe to others organic experiences such as we ourselves feel—pain, strain, hunger, thirst, emotional disturbances, etc.—and we go on to interpret their modes of activity and expression by ascribing to them various likes and dislikes, opinions, trains of thought, similar to, but in some respects different from, those that we apprehend in connection with our own activities. Having thus apprehended other beings as persistent sources of complex movements and centres of complex modes of apprehension, we are led to reflect more definitely on our own individuality, and to realize more clearly than we otherwise could that we also are such persistent centres. At first, it would seem, we take ourselves for granted, without reflection, and only through the apprehension of others become aware of ourselves as objects. Our pain simply pains us: the pain of others is apprehended as the experience of a particular persistent object. Our opinions are simply what we think: the opinions of others present themselves to us

as the more or less heterodox and peculiar attitudes of particular beings. Reflection on others enables us gradually to realize that we also are particular and more or less peculiar, and that this particularity has a certain persistence.[1]

6. *Consciousness of a Group.*—Our consciousness of others, however, is not simply the consciousness of a number of particular beings. It is also the consciousness of a group, to which we in some ways belong. Most of the higher animals are gregarious ; and in most of them the care of the young involves continuous relationships with a definite number of individuals. In connection with this, imitation plays an important part. Young animals observe and copy the actions of their parents. This is especially noticeable in some birds, among which it seems to be almost an essen-

[1] The account of the growth of the idea of personality in the peculiar case of Mr. Hanna, given by Messrs. Sidis and Goodhart in their book on *Multiple Personality* (pp. 103–4), bears so closely on this that it may be well to quote it here. Mr. Hanna was gradually recovering from his loss of consciousness, and building up anew his apprehension of the world.

"When he acquired knowledge of the existence of living beings, it was still hard for him to realize what persons really were in contradistinction to other living beings, and when he learned to differentiate the two, it was difficult for him to realize that he, too, was a person. Persons, he thought, moved about, while he was lying in bed ; then, too, they were dressed, while he was not. The manner in which he learned that he, too, was a being like other people is interesting. Mr. Hanna, pointing to himself, asked an attendant, 'People ? people ?' meaning to inquire whether he himself belonged to the same beings, and receiving an affirmative reply, he understood that he, too, was 'people.' Here again his imitative proclivity manifested itself in that he wished to be dressed and appear like other people. He was anxious to feel that he also was a person. To emphasize the fact to himself and others, and at the same time thinking this condition indispensable for personality, he was desirous of appearing dressed like those about him.

"It was difficult for Mr. Hanna to realize that, although he was a person, still his personality differed from that of others. It was hard to convey to him the different shades of meaning of words that indicate consciousness of individuality. The ego or self-consciousness came rather late in his present mental development. He was certainly conscious, and the activity of that consciousness was very intense. He was most eagerly taking in and elaborating impressions coming from the external world, impressions that were to him entirely new ; still, the consciousness of self was for some time absent. It was only after prolonged efforts on the part of his teachers that he could grasp the meaning of words conveying the idea of personal relations."

See also, in connection with this subject, Stout's *Manual of Psychology*, Book IV, chapter vii, and *Groundwork of Psychology*, chapter xiv ; and compare what is said on personality below, Chapters X and XI. The work of Avenarius may also be referred to with advantage.

tial element in the preservation of their lives. Various expressive sounds and movements also serve for the guidance of the young, and in many cases continue to guide the movements of adult members of the species. The way in which sheep follow the movements of their leaders has become proverbial. Thus even the lower animals become aware of themselves as belonging to a persistent group of partly competing and partly co-operating individuals. In human beings this becomes more definitely developed. They imitate one another, they communicate with one another, guide one another, compete with one another, co-operate with one another, are conscious of common ends to which they adapt common means, and in many ways learn to think of their group or groups as a more comprehensive unity of which they are parts, and from which they are not entirely separable.

7. *Social Psychology.*—In consequence of these interpersonal relations, it becomes necessary, in some respects, to treat the group, rather than the individual, as a psychological unit. Much has been written in recent times, by Le Bon and others, on the psychology of a crowd. When the mind of an individual is at work, in close co-operation with those of others, it tends to lose its individuality to a certain extent, and to identify itself with the dominant spirit of the mass. A skilful demagogue evokes passions that would otherwise lie dormant; but, in general, he also is stimulated by the responsiveness of his audience to a degree of enthusiasm which, but for that response, he would hardly feel. Beliefs, which would be questioned in private, get the force of objective certainties when they are known to be shared by a multitude. "My belief gains infinitely," said Novalis, "as soon as it is shared by another." "Infinitely" is too strong a word; but a belief does in this way lose some of the doubtfulness that attaches to purely subjective impressions; and, when it is not merely another individual, but a whole group or a "compact majority," by whom the belief is shared, it is hardly too much to say that the difference is "infinite"—in other words, it is qualitative, and cannot be expressed in terms of pure quantity. It is thus that the "hue of resolution," which, in private reflection, is "sicklied

o'er with the pale cast of thought," gains new vigour in co-operative effort. Those who lead great undertakings come to feel that they are the instruments of an almost irresistible force. It was this, no doubt, that Napoleon had in mind, when he said that he was not a person but a thing. Tolstoy exaggerates it in his contention that in war a general counts for almost nothing, and that it is by the driving power of the mass that results are brought about. But, in a qualified way, the view is probably not without truth. Hence, in a purely psychological sense, a group or society cannot be regarded as simply the sum of its members, but has almost to be treated as a fresh personality in which the separate individuals are to a large extent merged.

It is such considerations that justify us in speaking of a common or tribal Self. In a very large community, where there are a great variety of different interests and tendencies of thought, this kind of unity becomes less impressive, unless it is somewhat artificially stimulated, or brought into prominence by a national crisis. In smaller groups, such as a tribe, it can be more readily observed. Here the common consciousness is sometimes so strongly marked that the separate members seem to have hardly any individuality at all. They have hardly any private opinions or private taste or conscience or private modes of action. Byron said that orthodoxy tends to mean "my doxy," and heterodoxy that of some one else. It may be so in a community in which individual liberty is strongly developed; but in a simpler state of society orthodoxy means rather the beliefs of the group to which I belong; and this is to some extent the case even in more advanced societies. And if our thought is thus affected by the whole of which we are parts, our feelings and actions are still more strongly influenced by it. It is probably true to say that what we call conscience begins as the recognition of the restraining power of the group to which we belong. Conventional morality has its origin in the sense of the binding force of the customs of our people; and even in ages of reflection it has been noted that

> custom lies upon us with a weight,
> Heavy as frost and deep almost as life.

When the social consciousness is intensely developed in a relatively unreflective way, it tends to oppose itself to everything that tends towards change. People cling to their old traditions. If there are any prophets, they are stoned. Reformers, if any venture to come forward, are regarded as "cranks." Those who try to set up higher ideals are described as "prigs," or by some other opprobrious epithet. Still stronger is the opposition to what lies outside the group. Other peoples are not merely heterodox, but heathens or barbarians. The "Kultur" of the particular community, as the Germans call it, is thought of as the highest and best. Efforts are made to crush out other forms, or reduce them to subjection. Thus the struggle between groups tends to take the place of the struggle between individuals, which is prominent in some of the lower forms of animal life.

8. *Social Significance of Education.*—In a group of the kind that has now been referred to, education necessarily plays a considerable part, in the sense in which education means the initiation of the individual into the spirit of his society. It is here that human life is most definitely marked off from that of the lower animals. Even in the most gregarious species, the instincts that are inherited seem to be in all cases nearly sufficient for the carrying on of their lives. A little may have to be acquired, in some cases, by imitation, and a little has to be perfected by experience; but, in general, such acquisitions appear to be almost negligible. In human life, on the other hand, each new generation has to be initiated into the traditions of its predecessors, especially those that have become embodied in language and other methods of symbolic representation. The world of meaning becomes, for human beings, increasingly more extensive than the world of fact. Hence some sociologists, notably Durkheim,[1] have described education as

[1] "All education," he says, "consists in a continuous effort to impose on the child ways of seeing, feeling, and acting to which it would not spontaneously come." See *Les Règles de la Méthode sociologique*, p. 11: also his article on "Pédagogie et sociologie" in the *Revue de Métaphysique et de Morale*, vol. xi. This aspect of education is well emphasized also in Mr. Lester F. Ward's *Applied Sociology*. "In the administration of the social estate," he says (p. 307), "the first and principal task is to hunt up all the heirs and give to each his share. But every member of society is equally the heir to the entire social heritage, and . . . all may possess it without depriving any of any part of it."

a "new birth"—the birth of the social man out of the embryo of the individual. There are other aspects of education, which will have to be noticed at a later stage. These, however, do not always form a prominent element in the life of the community. The making of the citizen, in some form or other, is the aspect of it that can never be wholly absent. Where the social unity is intensely developed, as in the Greek city-states, it becomes specially prominent. In the work of Plato and Aristotle, the study of politics or social theory is almost coincident with the study of education in this sense. It is mainly the study of the way in which the individual can find his right place in the community, and be fitted for the fulfilment of his function in it. In most modern communities the social bond, though more comprehensive, tends to be somewhat looser and less intense; and the independent life of the individual counts for more. Hence the civic function of education is relatively less conspicuous; but in Germany at least, where the consciousness of national unity has become exceptionally strong, the function of education in the making of the citizen has again been very fully recognized; and in other nations also there has been a somewhat more tardy recognition of it.

In connection with this, the antithesis which is commonly expressed as that between nature and nurture has become somewhat prominent. Most animals are what they are simply by nature. Man, on the other hand, "partly is and wholly hopes to be"; and the relative importance of nature and nurture becomes an important subject of inquiry.[1] Plato emphasized the importance not only of the right placing of his citizens, and of providing the right education to fit them for their purpose, but also of a kind of antenatal selection by which the best natures might be secured. The modern study of Eugenics aims at a similar result. Selection of this kind is practised in the breeding of animals to serve human purposes; but the purposes of human life itself are so much more complicated, and in some respects so incalculable, that it hardly seems possible to accomplish much in this direction. At any rate, the study of Eugenics is not as yet

[1] One of the best general discussions of this is that contained in Ward's *Applied Sociology*, especially Parts II and III.

sufficiently advanced to call for more than this slight allusion at the present point.[1]

9. *Mechanical, Organic, and Spiritual Aspects of Social Unity.*—It has become common in recent times to characterize the social unity as organic; and for general purposes of social study this way of regarding it is not altogether inadequate. The life of a society may certainly be compared to that of an individual organism. It grows, and it may also decay. Its members have a life which loses its significance when cut off altogether from that of the community; and it works for ends which are not simply those of its individual members. But, while its general life may be regarded in this way, it is important to notice that a conception of this kind is not equally applicable to all the aspects of its life. This is true even in the case of an individual organism. The bones, joints, and muscles of a living being have a different kind of relation to its life from that which may be ascribed to the brain and nervous system, or to the organs that are directly concerned with the assimilation of food and the circulation of the blood. Some organs are more vital than others. Some may be fairly regarded merely as instruments that are used by others. Some may be removed without serious injury to the life of the whole, and might even be transferred—as in the engrafting of plants—from one organism to another. There is something similar in the life of peoples. Many of the institutions of national life serve purposes that are almost purely mechanical. Particular laws are framed for particular occasions. Machines themselves and various kinds of tools become a more and more prominent aspect in the life of communities. Most of these might be destroyed or altered without any very serious change in a nation's general outlook on life; and they can readily be transferred from one community to another. The general structure of a language is more vital; and scientific, moral, and religious beliefs are more vital still. But it would not be easy to draw any sharp distinction between those aspects that are mechanical and those that are vital. Hardly anything that is used in the life of a society can be regarded

[1] See also below, Chapter XI, § 6.

as merely an instrument. Almost everything that is used in this way reacts to some extent upon the habits, feelings, and beliefs of those by whom it is used; so that it is, in general, true to say that all the aspects of a people's life are as truly organic as those of an individual being. Of course, the extent to which this is true depends a good deal upon the structure of the society. In a despotically governed society, or one in which there is a large slave population, many of the members may be said to be little more than instruments that are used by their rulers. But such instruments at least can hardly fail to react in a vital way on those who use them—sometimes, as in the case of Greek slaves under Roman rule, in a way that is profoundly influential.

But there is another point that it is important to notice. If we take plant life as the type of a pure organism, it is evident that the introduction of a conscious centre, which becomes a more and more conspicuous aspect as we advance in the scale of animal life, differentiates the latter in a very important respect from the former. When the conscious centre is highly developed, the rest of the organism may be regarded, more and more, as an instrument under its direction. Hence we were led to distinguish the unity of consciousness from a simple organic unity. Now, a society contains consciousness, and so its life can at least hardly be assimilated to that of a plant. In a despotically governed State, it may be said to bear more semblance to that of an animal, the ruler or rulers corresponding to the guidance of the conscious centre. But even this analogy is very imperfect. Even in the most despotic State, the rulers are largely influenced by conceptions that belong almost as much to those over whom they rule as to themselves; and in free communities it becomes more and more apparent that the guiding principle is not to be found in any one conscious centre. What really guides, in such a case, is to a large extent traditions and beliefs that have grown up in an almost unconscious way. So far as this is true, the society may be said to revert somewhat to the plant type, and so to become more purely organic. But this, again, is only partially the case. As the life of a society advances, it becomes more and more clearly conscious of the principles by which it is

guided, and of the grounds on which they rest. Its life thus becomes, more and more, one in which conscious centres are related to one another, and consciously influence one another. It is a unity in which persons are related to persons. If this is to be called an organic unity, it must at least be borne in mind that it bears but little resemblance to the unity either of a plant or of an animal. It is best, therefore, to distinguish it from these by calling it by a different name. The most appropriate name for this purpose would seem to be that of "spiritual unity."

What we have to recognize, then, is that in the unity of a society we have to distinguish certain aspects which are not much more than mechanical, others that are somewhat akin to the unconscious growth of a plant, others that may be compared to the conscious guidance of an animal, and others that carry us beyond any such analogies. Those of the last type become increasingly important as human life advances; and it is with these that we shall be concerned in the chapters that immediately follow. The conceptions that are chiefly important in connection with them are those of choice, valuation, freedom, and personality.[1]

10. *The Foundations of Sociology.*—The complexity that we have now noticed in the structure of society makes it possible to study it in different ways. When we direct our attention to the conscious ends that are involved in its life as a spiritual unity, we are led to those studies that were called by Aristotle Ethics and Politics, and that are still often known by the same names. The foundations of these studies will have to be considered later. Aristotle, however, had already noted that societies are first formed with reference to little more than the necessities of life, and that it is only afterwards that they are led to realize that they exist for the

[1] Dr. McTaggart, in his *Studies in Hegelian Cosmology*, chapter vii, has made some interesting criticisms on my mode of characterizing the social unity as organic. It would be somewhat out of place to discuss his criticisms here. I may state, however, that with a good deal of what he urges I do not substantially disagree; and I hope that the explanations given in this chapter and in Chapter XI will at least remove some of his objections. In his *Commentary on Hegel's Logic* he appears to have less objection to the application of the conception of "organic unity" to human society than he had when the earlier book was written.

sake of good life; and his study of Ethics and Politics is to some extent a study of origins and existing conditions, as well as of ultimate ends. In recent times it has been found convenient to make a more definite separation between these two methods of study; and the study of society, with reference rather to its origin and growth than to its ultimate ends, is now usually described as Sociology. It is not concerned directly with final causes, but rather with efficient or formal causes in the sense already explained—i.e. with the relation of social unity to the causal order that is discovered in the processes of vital and psychological development, as these are exhibited in connection with various physical environments. Its special object of study is the group consciousness as affecting the activities of individuals. It traces this back to its humblest beginnings in the gregarious species of animal life, and notes its growth and influence at different stages and in different circumstances throughout the history of mankind. It is the natural history of human life in its definitely social aspect, and is most closely connected with biology, anthropology, and psychology. Final causes can hardly be neglected altogether in such a study; but they are only incidentally referred to, so far as they can be shown to be actually efficient or formative in the development of human life at particular stages. It is thus mainly concerned with the more mechanical and organic aspects of society, and only prepares the way for the study of its more distinctly spiritual aspects.[1]

What it now remains for us to do is to pass from this somewhat matter-of-fact way of regarding the life of self-conscious beings, and to enter upon the consideration of the way in which their lives are affected by the definite introduction of final causes—i.e. by the recognition of ultimate values. The general significance of value is, accordingly, the next subject that calls for our attention.

[1] For an account of the limited way in which the science of Sociology tends to be conceived, reference may be made to Professor Durkheim's book on sociological method: also to an article by Dr. Rivers in the *Sociological Review*, vol. ix, no. i.

CHAPTER VIII

THE CONCEPTION OF VALUE

1. *Feeling as Valuation.*—The recognition of one thing as being better than another is, to some extent, involved in all conscious life; but, in its earlier stages, the recognition is of a very vague kind. Even in plant life there is a selection of what is suitable and a rejection of what is prejudicial. This might be called organic valuation; and, in our own conscious life, there are some valuations to which this term might be very well applied. When we like what is sweet, or dislike what is painful, the choice that is implied would seem to be essentially that of the organism. The organism makes unconscious selections; and a conscious being, having taken over his organism as a going concern, begins by accepting its selections, just as a ruler may accept the wishes of his people. The obvious pleasantness or unpleasantness of some tastes and smells, in particular, does not appear to be explicable in any other way. We do not know why we are pleased or displeased by them. We simply find that they are pleasing or displeasing to us; nor can we, by taking thought, make them otherwise, except indirectly and in a slight degree.[1] "The expulsive power of a new affection" may enable us to ignore them, or habit may weaken them, but there they still remain. This is the most rudimentary form of valuation. When, on the other hand, we like to have power or wisdom, our valuation is of a much more reflective kind, and can much more easily be modified by changing our point of view. This has often been explained by saying that pleasures differ in quality; and it may be well to consider how this is to be understood.

[1] It is experiences of this kind that Brentano, if I understand him rightly, would call *Gefühlsempfindungen*. See above, Book I, Chapter III, § 1.

2. *Qualities of Feeling.*—The emphasis on different qualities of feeling, as representing higher and lower modes of valuation, is to be found most definitely in the works of Plato and Aristotle. It was also brought out, though in a much less clear and consistent form, by J. S. Mill, who urged that some forms of pleasure are intrinsically preferable to others. The truth, however, seems to be, not that certain modes of feeling are preferable to others, but rather that the preferences implied in some modes of feeling are better grounded than those implied in others. Pleasure is commonly taken to mean a mode of preference that is relatively passive. We do not choose to be pleased, but simply are pleased. Different terms are generally used for those modes of satisfaction in which the grounds of valuation are more apparent, and in which the element of active choice is consequently, in some degree, present. Joy, for instance, expresses an attitude that is not purely passive. It generally implies the attainment of some object that has been more or less consciously pursued. We are pleased by certain tastes, smells, sounds, colours, etc., whether we have been seeking them or not; but joy comes to us only when we achieve some object that we have, in some more or less definite way, desired. It is in connection with this that what has been called "the paradox of Hedonism" appears. We cannot get joy unless we are interested in some object the attainment of which yields satisfaction. This is not necessary, as Sidgwick pointed out, in the case of sensuous pleasure. The interest in this case is organic, and comes to us without choice. Happiness means a kind of satisfaction of a still more complex kind than joy. The lower animals are, in general, capable of joy, but probably not of happiness. To have happiness we must have some conception of life as a connected whole, involving a variety of co-ordinated aims. All these modes of satisfaction are primarily ego-centric. A man may have pleasure, joy, and happiness without reference to any other consciousness than his own. There are other modes of satisfaction that are more definitely social, or that imply the adoption of a point of view that is not simply that of the individual. Love is a mode of valuation that is in general concerned with other persons. It may be directed

towards a single person, or, as in the love of country, rather towards a group. It may also be directed towards objects that are not directly personal, but to which a kind of personality is ascribed, as in the love of nature, of freedom, of justice, of beauty, of truth, of goodness, and the like. In all such cases the object is valued for its own sake, rather than for any direct relation that it has to ourselves. The satisfaction resulting from the contemplation of such objects is sometimes called bliss or blessedness.

It would be somewhat misleading to say that these higher modes of satisfaction are necessarily in themselves preferable to the lower. The joy of battle is not necessarily to be preferred to the pleasure that is derived from sounds or colours. The happiness of an egoist is not necessarily higher than the pleasure of an epicure. Even love may be as foolish and as degrading as appetite; and the bliss of a drunkard may have no more lasting value than the organic pleasure by which it is largely conditioned. What is true is rather that the capacity for adopting a higher point of view opens up the possibility of developing interests in objects that have more intrinsic value. In all cases it is important to bear in mind that it is not the valuing that is valued, but the object to which value is attached. There is such a thing as the enjoyment of pleasure or the love of love; but these are secondary sentiments, which presuppose the pleasantness of something other than pleasure and the love of persons or things other than love itself.[1]

3. *Feeling-tone and Feeling-attitude.*—We have now reached a point at which it seems both possible and desirable to explain more definitely the exact significance of the distinction that has been referred to more than once before, between feeling-tone and feeling-attitude, or between *Gefühlsempfindungen* and *Gefühle*, or between simple feeling and liking, or however else it may be best to phrase it.[2] It

[1] One of the best discussions of emotional states is that in Dr. McDougall's *Social Psychology*. See especially chapter v, in which the distinction between Joy and Pleasure is well brought out.

[2] There are many ways in which the distinction may be expressed. I think, for instance, that the contrast drawn by Goldscheid (*Zur Ethik des Gesamtwillens*, pp. 73–4) between *originale* and *übertragene Gefühle* calls attention to what is essentially the same point.

is largely, I believe, in consequence of the ignoring or imperfect apprehension of this distinction, that the whole treatment of feeling has presented so much difficulty in psychology. It seems clear that feeling-tone has many of the characteristics of sensation. This has been strongly emphasized by Adamson,[1] and is also very well brought out by Professor Külpe.[2] In view of this, it is very naturally placed among the sensations, though it is without a special sense-organ, and may be characterized as an "inner sense," in contrast with those that can be traced either to sources external to the organism or to special parts of the organism itself. Liking or feeling-attitude, on the other hand, appears to be rather an incipient choice, and hence has been classed by some (especially by Brentano) along with volition. Dr. Ward and others have felt the unsatisfactoriness of either mode of classification, and hence have tended to give it a rather anomalous position by itself. The difficulty is a real one, and I cannot pretend to deal at all fully with it here. I can only indicate what appear to be the main considerations that bear upon it. Even feeling-tone may be said to be an incipient valuation; but it is a valuation that has to be ascribed to the organism or to the subconscious working of the mind, rather than to the conscious self. Liking, again, even when it is the result of reflective choice, tends to pass into simple feeling-tone. We more or less forget the grounds of our valuation, and simply retain the sense of value. This process may be compared with that by which deliberate actions tend to pass into habits that, in the end, are hardly distinguishable from instincts. Again, the distinction is apt to become a little blurred, owing to the fact that we may value the feeling-tone itself. We may, for instance, like the pleasantness of a taste, sound, or colour. It seems possible even to like what is in itself disagreeable, as, for instance, in what is called the "luxury of grief"—such an attitude as that of Lady Constance, "Grief fills the place up of my absent child." But see below, § 10. It is in this sense, I think, that it is rightly maintained by

[1] *Development of Modern Philosophy*, vol. i, pp. 175–9.
[2] *Outlines of Psychology*, Part I, § 2.

Dr. McTaggart,[1] Dr. Rashdall,[2] and others, that we may attach quantitative estimates to pleasures. We may value the sense of value, just as we may love love. This is, I suppose, what is done by the pure pleasure-seeker; and, though he cannot really measure his sense of value as such, he can yet give it a place in his general scale of values. It may be noted also that the sense of value, like other sense-experiences, may be distinguished, as Dr. Moore has urged,[3] from the consciousness of it. This hardly appears to be true of definite liking; but the transition from the one to the other is often gradual and almost imperceptible. It seems to me that many of the most puzzling problems about feeling are removed by this distinction; but to dwell on it farther at this point would carry us too far away from our special problem. It is enough to urge here that reflection on the considerations that have now been indicated may enable us to realize that the distinctions between the different aspects of our conscious life are by no means as sharp as has often been supposed; and especially not as sharp as Dr. Ward has represented them as being.[4]

But what specially concerns us here is the fact that, just as we can advance from feeling-tone to liking, so we may advance from liking to choice, and from that to the consideration of intrinsic value, which is independent of our individual preferences.

4. *The Social Element in Valuation.*—It has been noted in the previous section that our valuations are not always made from a purely individual point of view. Of course, the object that we value must in some way interest or appeal to us; but the interest may be one that carries us away from our own individuality. It has sometimes been said that love

[1] *Studies in Hegelian Cosmology*, chapter iv.

[2] *Theory of Good and Evil*, at the beginning of the second volume.

[3] *Principia Ethica*, pp. 87–9. Plato seems to have been substantially right about this. See especially his treatment of pleasure in the *Philebus*.

[4] The whole subject, however, bristles with difficulties. Some of the most important of these, and the chief theories by which they may be met, are well brought out by Professor Titchener in his *Psychology of Feeling and Attention*. See especially p. 291. On different qualities of pleasure, there are some interesting remarks in Dauriac's *Essai sur l'esprit musical*, chapter x.

is selfishness for two ; but, at any rate, it is very different from selfishness for one, and it is seldom confined to the simple dualism that is thus suggested. It involves the appreciation of qualities that have a certain universality. At any rate, when love is extended to a larger group, such as a country, the element of selfishness becomes more and more evanescent ; and, in the love of liberty or truth, the object is clearly of a universal kind. In the interest of such objects an individual may have to sacrifice not only his life, but also his prejudices or *idola*. He puts himself at a point of view that commands a larger survey than he has merely from his own centre, and he corrects his own outlook by reference to the other. He may even be led in this way to value what he dislikes. Things for which he has no natural taste may be seen to be intrinsically good. He may choose what as a private individual he detests. Valuation thus comes to be a much more complex process than it is when it is guided simply by our passive impressions or by our natural instincts or impulses.

5. *The Transvaluation of Values.*—We thus come to a point that has been specially dwelt upon in recent times by Nietzsche. Our valuations are not constant, but are subject to change and development. The most obvious illustration of this is found in the transition from the lower forms of satisfaction to the higher. Sensuous pleasure and the joy of physical action and expression bulk more largely in the early stages of human life than they do in the more reflective consciousness that is developed later. Little is valued at first but what is an immediate source of pleasure or joy. The pursuit of happiness leads to a considerable transformation of these earlier valuations. It may even, as with the reflective Epicureans in ancient times, lead to an almost complete disregard of what was at first most highly valued, or to a tendency to treat such objects as having rather a negative than a positive value. Some of the Epicureans taught that our attitude towards sensuous gratification should be one of such indifference that even the tortures of the rack, viewed as an episode in a well-conducted life, might be regarded as pleasant. A similar transformation takes place when we

pass from the point of view of individual happiness to that which is implied in the love of others. *Dulce et decorum est pro patria mori*; and for the sake of a friend also it is sometimes felt to be more blessed to give than to receive. The friend, as Aristotle put it, gets the gift; but the giver gets τὸ καλόν, which he values more. Here, however, we are passing from the attitude of simple love to the conception of intrinsic good. But the latter conception itself is one that tends to undergo transformation. What is best has been differently conceived in different ages and by different schools of philosophic thought; and the value attached to particular objects is affected by such transformations. Some, for instance, value liberty more than social order; others tend to arrange these goods in the opposite way. There are similar differences in the valuation of truth, courage, temperance, art, and almost all the objects, either personal or impersonal, that men tend to pursue or cultivate.

6. *Grounds of Valuation.*—These considerations lead us to notice, more definitely, that, at the higher levels of conscious choice, things are not valued without ground. The recognition of the grounds of valuation tends to become more and more distinct as choice becomes more conscious. In simple pleasure and joy, and often even in love, the grounds of preference are hardly apparent; and the same is of course true of their opposites. It would be somewhat absurd to inquire why any one dislikes toothache or debility. The same is no longer the case when we are concerned with happiness. Most people know pretty well why they value health, wealth, or power. Their valuation may be partly instinctive, but, in general, it is largely based on the knowledge that the chief ends of life (of which, however, they may not have any very clear conception) are subserved by the possession of these goods. Other things, again, are valued with reference to these goods—food for health, efficiency for wealth, popularity for power, and so on. In such cases the feeling of satisfaction, which is the prominent feature in purely sensuous valuation, tends to fall somewhat into abeyance. It does not wholly disappear, but often it becomes so faint that it can hardly be described as pleasure. The

man who values knowledge, because knowledge is power, may even have a certain distaste for knowledge which, as pure unpleasant feeling, is more marked than his appreciation of it. His valuation of it is then little more than the intellectual recognition that it is a thing to be chosen. We are thus led to notice that the apprehension of value, which in its earlier and more immediate phases is highly subjective, may become almost purely objective.

7. *Objective Value.*—Our simplest valuations, as we have already noted, are simply individual likes and dislikes. We are not aware of any ground for them. The organism, however, has a ground, and on reflection we become aware of that ground. The organism selects what is wholesome, in preference to what is unwholesome; and, in general, we like what the organism selects, and dislike what it rejects. But this is only roughly true. We make a good many mistakes in our likings and dislikings. On reflection, we correct these mistakes, and begin to choose what we believe to be wholesome, even if we dislike it. Our ground of valuation thus becomes an objective one. We recognize that the value of food and drink does not consist in their being pleasant, though this is to some extent an indication of their value; but that it consists in their being means for the maintenance of life and health. Having discovered this, we go on to inquire into the value of life and health. Now, life is primarily valued for the joy of living, and health because disease is painful. But we gradually learn to value health rather as a means to efficiency, and life for the interests that it enables us to pursue. Thus, an objective ground is continually being substituted for the purely subjective preference; and, in general, the objective ground is the recognition that the thing that we value is a means to something else. The more this is recognized, the more does the fact of subjective appreciation sink into the background. A banker, in counting his cash, is aware of the relative values of the pieces with which he deals, but probably does not feel any more emotional thrill at the sight of a sovereign than at that of a penny. His valuation has become almost purely objective.

8. *Instrumental Value.*—When things are valued in this objective way, almost everything is regarded as good for something else, rather than in its own intrinsic nature. Spencer has illustrated this use of the term "good" with his usual profusion of instances, from umbrellas to human conduct. The things that are most commonly valued in this way, however, are, in general, impersonal. Hence a sharp distinction has sometimes been drawn—notably by the Stoics—between things and persons. It can hardly be made quite sharp, however, since some of the qualities that belong to persons—e.g. their skill in particular kinds of work—are naturally regarded as means. Kant distinguished between those things that have a market value, those that have a fancy value, and those that have an intrinsic dignity or worth. A fancy value is essentially subjective, and does not here concern us. The important distinction for our present purpose is that which seems to be best expressed as the distinction between instrumental and intrinsic value. The former, it would seem, may or may not correspond to a market value.

The objects that have instrumental value are, for the most part, things that are separable from persons, but that are capable of being used by them. They are generally "fungible"—i.e. capable of being treated as classes, the units of which may be substituted for one another and regarded as equivalent for particular purposes. Most things of this kind can be passed from one person to another, and can be exchanged for other things of equal or comparable value. It is chiefly with such things that the science of economics is concerned, though it has also to take some account of certain things that are not directly exchangeable, but the use of which can be paid for—such as personal services. It is customary in the study of economics to consider these objects mainly, if not exclusively, from the point of view of their market value; and it is explained that this is dependent on demand and supply—i.e. on human desires, on the one hand, and the difficulty of satisfying them on the other. The former is evidently a subjective factor; and the latter is partly so, inasmuch as one of the difficulties in procuring things is the aversion of human beings to certain

forms of labour. Hence this kind of value, though partly objective, in the sense that it is not simply dependent on individual likes and dislikes, is also largely subjective. It depends on the interaction of individual likes and dislikes, and on those collective likes and dislikes which are expressed in changing fashions.[1]

Ruskin, in his criticism of the usual methods of dealing with economic questions, sought to eliminate this subjective element. He contended that "the only wealth is life," and that the value of all objects should be determined by reference to their serviceableness in the promotion of life. He seems to have thought that, in this way, a definite and constant value could be assigned to all the objects of which human beings make use. But this is surely erroneous. The serviceableness of objects for the purposes of life varies very much according to circumstances affecting both the objects and the persons who use them, and would probably be as difficult to determine in this way as it is by reference to men's fluctuating desires and aversions. It may be objected also that there is some misuse of language in the statement that wealth is life. What is meant seems to be rather that wealth consists of objects that are used for the support or promotion of life. It remains true, however, that, when wealth is regarded in this way, a considerable transvaluation of economic values is brought about. An objective standard is substituted for the standard that is set up by the interaction of individual desires and aversions. Much that is regarded as wealth from the latter point of view becomes what Ruskin calls "illth," or at least has its value greatly reduced, and several things to which many people are averse come to be regarded as possessing a positive value. Alcohol, for instance, may have its value reduced, and some forms of labour, instead of being treated simply as cost, may have to be treated as positively valuable. The essential point is that the standard of valuation becomes the conception of a definite objective end, instead of being based merely on subjective preference.

[1] It is to be regretted that the purely hedonistic interpretation of valuations (now abandoned by almost all philosophical writers) is still to a very large extent adopted by writers on economics—e.g. by Professor Marshall.

If, however, the promotion of life is regarded as the end, we are led not merely to a transvaluation of economic values, but also to the valuation of objects that can hardly be treated economically at all. Things that are not fungible or exchangeable or separable from the lives of persons have to be regarded as possessing value. This is especially brought out by the modern doctrine of evolution. Spencer, for instance, regarded the promotion of life as the end; and, in a different way, a similar doctrine was emphasized by Nietzsche. The chief difference is that Spencer thought of the promotion of life as meaning the production of an ideal form of social unity, whereas Nietzsche thought of it in a more purely individual way. In whichever way it is regarded, those things that contribute to the advancement of life, whether individual or social, have to be regarded as possessing positive value; and those things that tend to impede its advancement, as having negative value. If we think of the advancement of life simply as a struggle, in which the fittest survive, the kind of value that has to be ascribed things is that which is commonly characterized as "survival value." Horns, spurs, talons, teeth, muscular force, the power of nervous endurance, ability to assimilate and retain objects as food, length and pliancy of limb, quickness of perception, and many other objects and qualities, would, from this point of view, have great value in the struggle for existence among animals. Some of them would retain considerable value in human life; but here we should have to add knowledge, foresight, tact, resourcefulness, adaptability, readiness to co-operate, etc.; and, on the more definitely social side, organization, technical skill, diplomatic resources, armies, fleets, fortresses, and the like. But it is hardly possible, on reflection, to regard the mere maintenance of life, whether of individuals or of communities, as the end for which we have to strive. Most evolutionists recognize that what we have to aim at is not the survival of the fittest, but the survival of the best. Spencer thinks of a free co-operative community; Nietzsche thinks of the Superman. Thus it is not merely life that is taken as the end, but a particular type of life; and things are estimated, not simply by reference to their survival value (though that would still have some weight),

but with reference to their tendency to further the developments of what is regarded as the highest type. It is generally recognized at least that it is not ultimately wise *propter vitam vivendi perdere causas*. But this raises the question, What is to be regarded as the highest type, and why? Spencer ultimately takes pleasure as the test; Nietzsche apparently regards the Superman, as conceived by him, as having intrinsic value or worth, without reference to any other end. On either view, however, it seems clear that something has to be recognized as having intrinsic value in itself, and that it is with reference to this that the objective valuation of all other things has to be made. We are thus led to the recognition of a kind of objective value that is not merely instrumental, but intrinsic.

9. *The Conception of Intrinsic Value*.—It seems clear that life, simply as such, can hardly be taken as that which is intrinsically good, but only some particular type of life, either individual or social. If we say that "more life and fuller" is what we seek, we have still to inquire what is meant by "more" and "fuller," or, as Spencer puts it, by the "length and breadth" of life. A merely vegetative life, or even a merely sentient life, could hardly be supposed to be a complete expression of what is intrinsically good. It would seem that it must be at least some form of self-conscious life. Spencer, as we have noticed, took pleasure or complete happiness as the ultimate test of its realization. Sidgwick put forward a clearer and more definite argument in support of this view (which, in itself, is of course a very old one). He urged that what is regarded as ultimately good must be something that can be consciously apprehended; and that we see, on reflection, that the only thing that we consciously value for itself is pleasantness. The plausibility of this lies in the fact that whatever we consciously value is, in the widest sense of the word, pleasant or agreeable or satisfying. But it seems clear that what satisfies us is always something that is distinguishable from the fact that it satisfies. Even if we are satisfied with pleasure, the pleasure that satisfies can be distinguished from the satisfaction that we experience in having it; and, if we are satisfied with know-

ledge or power or freedom or order or beauty or justice, the object that satisfies is still more obviously distinct from the satisfaction that it yields. The question is, What kind of object, when consciously apprehended, yields an immediate satisfaction which is not simply due to our recognition of it as a means to something distinguishable from itself? This is not an easy question to answer; but the objects that most obviously present themselves to us as having this characteristic are Truth, Beauty, and Goodness. It would seem, however, that no one of these could be accepted as satisfactory, if the others were absent. If what is real were ugly and bad, the apprehension of what is true with regard to it would not satisfy. Yet the saying "Where ignorance is bliss, 'tis folly to be wise" seems to put this too strongly. Conscious ignorance could hardly be bliss, though unconscious ignorance might be pleasant or joyful. Goodness, again, is apt to present itself rather as a means than as an end. The will to realize what is best seems to presuppose something that is best at which it aims, and which can be distinguished from itself. The effort after what is best, without its achievement, could hardly yield satisfaction. Beauty appears to be more nearly an object that yields pure satisfaction, when clearly apprehended. Yet, if it were apprehended only as an ideal to be sought, not as something that can be known as real, it does not appear that it could yield any complete satisfaction. Reality apprehended as completely beautiful would yield satisfaction; but it would seem that the satisfaction would be more perfect, if it were also apprehended as being consciously chosen—i.e. if the element of goodness were added. This much seems clear; but it is not so easy to explain what is properly to be understood by beauty. It seems to mean a unity of diverse elements, arranged in perfect order, without external compulsion, but determined by its own essential nature. We may be able, at a later stage, to consider this more definitely. The conception of spiritual unity and cosmic unity may throw some light upon it. In the meantime, we must be content with the statement that, for any complete conception of intrinsic value, it seems to be necessary to have a certain combination of Truth, Beauty, and Goodness. A universe apprehended as

truly beautiful, and consciously chosen as such, seems to be the nearest that we can get to what would finally satisfy us.[1]

10. *The Unity of Values.*—Reference has already been made to Dr. Moore's use of the conception of organic unity in connection with value. His point is that the value of a complex object is not simply the sum of the values of its constituent parts. I think, however, that the term "organic unity" is here somewhat misapplied. Even in a mechanical system the whole can hardly be treated as simply the sum of its parts. A pair of scissors, regarded as a mechanical combination, is more than the sum of its two limbs; its efficiency depends on the possibility of co-operation due to the manner in which the two blades are united. The truth seems to be rather that it is a mistake to speak of the value of any single object as such. According to Emerson, "nothing is fair or good alone." Its value is always dependent on its place within some system to which it belongs; and, as it may be included within a number of different systems, its value has to be treated as a variable magnitude. This is no doubt specially apparent when we are dealing with instrumental values. It is the ignoring of it that seems, for instance, to vitiate the treatment of value in Ruskin's *Munera Pulveris*.[2] But I think it applies, in some degree, to every kind of value or worth. The value, positive or negative, that we attach to a war depends largely on the question whether we are regarding it from the point of view of the devastation, destruction of life, pain and embitterment of feeling which it occasions, or from that of the heroism and self-devotion that are displayed in it or the promotion of national and international ideals that it may subserve. The value of an individual, regarded as a soldier, as a statesman, as the father of a family, as a good neighbour, as a teacher, and so forth, may be a very variable

[1] It is greatly to be regretted that Green did not develop the hints that he gave in his *Prolegomena* (§§ 289, 370, and 381) as to the relations of Goodness to Beauty and Truth. It seems clear that, in the wider sense of the word, they are all *good*. For some further considerations bearing upon this subject, I may refer to my *Manual of Ethics* (5th edition), book ii, chapter vi, §§ 3–60.

[2] See especially chapter i, § 13. He states there that "intrinsic value is the absolute power of anything to support life." Such value may be called objective, but it seems clear that it is essentially instrumental. It may be questioned also whether any particular thing can rightly be said to have such an absolute power.

value ; and the values that are assigned to him in these respects may all be distinguishable from his intrinsic worth as a man. Again, it may be that, from the point of view of the universe, even his worth as a man among men is subject to qualification. This is a view at least that is familiar to religious thought—as expressed, for instance, in the lines of Tennyson :—

> Forgive what seemed my sin in me ;
> What seemed my worth since I began ;
> For merit lives from man to man,
> And not from man, O Lord, to thee.

It is certainly doubtful whether anything can properly be said to have intrinsic value, in the full sense of the word, except the Cosmos, regarded as a perfectly coherent and beautiful whole ; [1] and, if it can be so regarded, it may be even that every part of it, viewed in its proper place, has absolute worth. But this is a conception with which we are not yet in a position to deal.[2] In the meantime, Truth, Beauty, and Goodness may be regarded provisionally as having intrinsic value ; [3] and all other things as having value or worth in the degree in which they are parts of such ultimate ends, or instruments that serve to promote their realization.[4] For this reason it does not seem legitimate to ascribe what are called tertiary qualities to particular objects in quite the same sense in which either primary or secondary qualities

[1] I understand this to be the view that is taken by Dr. Bosanquet. See his *Principle of Individuality and Value*, especially p. 310. He suggests that the whole should be regarded as the standard of value, but not as having value. I understand him to mean by this that the *worth*, or intrinsic value, of the perfect whole, is to be distinguished from the relative or instrumental values of its parts.

[2] See Chapter IV.

[3] Münsterberg's book on *The Eternal Values* may be referred to in this connection.

[4] Failure to recognize the dependence of values on the whole to which they are referred, seems to me to vitiate much of what is stated in Dr. McTaggart's paper on "The Individualism of Value" (*International Journal of Ethics*, July 1908). Professor Höffding's axiom of the conservation of value (which is surely, in any case, rather a postulate than an axiom)—"the conviction that no value perishes out of the world"—has to be taken, I think, with a similar qualification. If the values do not perish, they may at least be transmuted. See his *Philosophy of Religion*, p. 6. The fact that in valuing things we are regarding them within a whole may also be taken as modifying what is stated above (§ 3) about the possibility of liking what is in itself disagreeable.

may be properly so ascribed. Tertiary qualities are modes of value; and the values that belong to things belong to them as contained within a system of valuations. The distinction, however, is perhaps only one of degree. Primary qualities belong to objects as occupying definite places in a spatial system; secundo-primary qualities,[1] as implying corresponding modifications in surrounding objects; secondary qualities, as co-operating with sentient beings in the generation of sense-data; tertiary qualities, as occupying variable places in certain systems of values.

11. *Norms or Standards.*—The three aspects that seem to be contained in what is intrinsically valuable, furnish us with three standards for the estimation of value, which are in themselves distinct, though for complete value it is necessary that they should be combined. The combination of them in their completeness is best described as the ideal of perfection, and is sometimes called the Absolute. How far we can legitimately set up such an ideal, and make it fully intelligible, we shall have to consider later. In the meantime, it may be noted that it is apt to appear that when the three standards are thought of as being combined in a perfect whole, they lose some of the essential significance that they have for us in their separation. Truth, taken by itself, seems to mean judgment that can be correctly ascribed to reality. But a whole, apprehended as beautiful and good, could hardly be expressed either as a single judgment or as a collection of judgments. Judgments, it would seem, could only express certain aspects of it; and the truth, thus fragmentarily expressed, would be neither beautiful nor good. Similarly, it might seem that a Cosmos apprehended as beautiful, would not be beautiful quite in the sense in which beauty is ascribed to particular objects. Beautiful objects are, in general, sensuously apprehended; whereas what the Greeks called τὸ καλόν is rather an intellectual conception. Goodness, in like manner, as we apprehend it, means essentially the love of what is true and beautiful, and the effort, in various particular directions, to realize them in some degree. A truth that cannot be expressed in judgments, a beauty that

[1] See above, p. 188.

is not sensuous, a goodness that does not contain the element of effort or aspiration, are apt to appear to be neither truth, beauty, nor goodness, as these terms are commonly understood. Such terms as Kant's "intellectual intuition" or Spinoza's "intellectual love of God," may be thought to destroy the specific meaning of "intellectual," "intuition," and "love." But it may be doubted whether such an objection is valid. Truth, even in a limited sense, is not always expressible in separate judgments. The apprehension of any fundamental concept, such as Space, Time, Number, Quality, etc., is not a judgment or collection of judgments, but rather the foundation on which particular judgments rest. Nor is the beauty of a poem or of a chain of reasoning sensuous, though sensuous elements may be contained in it. Nor is the goodness of a saint simply or necessarily effort, though it will probably lead to and express itself in particular efforts. Hence it does not appear to be altogether impossible to think of a perfect whole in which what is essential in the three standards should be combined, without the limitations that belong to them in their separation. Hence it may be doubted whether it is right to make such an opposition as Kant makes —and as Mr. Bradley and others seem also to make—between intellectual intuition and human knowledge; or, again, to say, as Spinoza does, that he who loves God does not desire to be loved in return. The knowledge that God has, and the love that God exercises, if we have a right to postulate them at all, would no doubt be, in many ways, different from any knowledge or love that can belong to us; but it is not apparent that they must be so different as not to be rightly called by the same name. Still more, I think, must we question the contention of Dr. Bosanquet, that the ultimate standard of value does not itself contain value, that the supreme Good is not rightly described as good at all.[1] But these questions will have to be more definitely considered in a later chapter.

12. *Normative Sciences.*—The three standards that have now been referred to furnish the foundation of what are often described as the normative sciences. Logic is said to

[1] But see note 1 on p. 291.

be concerned with the standard of truth, æsthetics with the standard of beauty, and ethics with the standard of goodness. Logic, however, as we have already noted, is perhaps better regarded as the science of implication than as the science of truth. The science of truth may be better described as Epistemology; but Logic is sometimes understood as being equivalent to this; at least the distinction between the two subjects is not, in general, very sharply drawn. It seems true to say, however, that æsthetics and ethics are primarily concerned with the standards of beauty and goodness. The difficulty of all these sciences is that they are concerned with ideals—i.e. with standards that we are not able to apply with any completeness. We are free, however, to aim at such completeness, and to approximate more and more nearly to their realization. And this leads us to notice the significance of the conception of human freedom, which is very closely related to that of value.[1]

[1] The general subject of Value is one that the Austrians have made peculiarly their own. Reference may be made, in particular, to the important writings on the subject by Meinong (*Psychologisch-ethische Untersuchungen zur Werththeorie*) and Ehrenfels (*System der Wert-Theorie*). These writings have the defect of being too purely psychological (dealing more with valuation than with value as such). I passed some criticism on them, from this point of view, in some "Notes on the Theory of Value" that were published in *Mind* (October 1895); and they have since been more fully discussed by Dr. Urban in his book on *Valuation, its Nature and Laws*. Meinong himself, however, has adopted in his later writings a more objective and metaphysical method of treatment. On the more economic aspects of the subject, the works of Menger, Wisser, and Böhm-Bawerk are specially important. The leading ideas of these writers have been well summarized by W. Smart in his little book on *The Theory of Value*. The exposition of Intrinsic Value in Dr. Moore's *Ethics* (chapter vii) is very good. On the meaning and application of the term "Good," his *Principia Ethica* (chapter vi) should be consulted. See also the books by Mr. Dickinson (*The Meaning of Good*) and Professor G. H. Palmer (*The Nature of Goodness*). The treatment in Dr. Rashdall's *Theory of Good and Evil* is elaborate; but I think it is somewhat confusing, owing to a lack of sufficient definiteness in his attitude towards Hedonism. It gives, however, a very comprehensive view of the subject.

CHAPTER IX

THE PROBLEM OF FREEDOM

1. *The Connection of Choice with Value.*—It has already been urged that volition means essentially a mode of action in which the final cause becomes efficient. What this means has become somewhat more apparent in the light of the considerations that have been set forth in the last chapter. In all conation the element of valuation seems to be in some degree present; but in its simpler stages this element is, to a large extent, implicit. Animal action implies preference, but the preference may be almost purely organic. In what is properly called choice there is a definite apprehension of some good at which we aim, and the recognition of this good leads to movements directed towards its realization. The valuations that are thus involved may, however, as we have noticed, be based on grounds of very different kinds; and it is mainly in connection with these differences that the significance of what is called freedom comes into prominence. Even simple animal action may be more or less spontaneous. The movements that are gone through in the working out of a complex instinct, such as those involved in a bird's construction of its nest, are, in a certain sense, more spontaneous than those involved in a futile struggle to escape from a cage or trap. In the former case there is an end to which a series of movements is definitely adjusted. In the latter case the movements are relatively spasmodic and ineffective. It may be doubted, however, whether, in either case, there is any distinct apprehension of the relation between end and means. This is sometimes the case in human action also. Cromwell said that a man never goes so far as when he does not know where he is going; and Napoleon's saying, that

he was not a person but a thing, seems to be another way of expressing the same conception. In so far as this is the case, men can hardly be said to be free in their actions. They are free only in so far as they select a definite end, which they value, and are able to select suitable means for its attainment. The use of the term "free" with reference to ideas, which has become common in recent psychology, may help to bring out the significance of this.

2. *Implicate and Free Ideas.*—Professor Höffding, in particular, has referred to ideas as being "bound" or free; and Professors Ward and Stout have laid much emphasis on this distinction. It has also been strikingly illustrated by Professor Lloyd Morgan with reference to animal instinct. The point is that an idea may be more or less effectively present without being disentangled from its connections with other ideas. We may, for instance, be differently affected by objects of different colours without clearly knowing what the colours are; or we may act differently in dealing with objects of different sizes and weights without having any definite apprehension of size or weight. Similarly, things may have value for us without any conscious process of valuation. It is common to use the term Instinct in connection with this. We say that we instinctively prefer one thing to another, or that we have an instinctive aversion from certain modes of action. There is some objection to this mode of expression; but it serves at least to bring out a certain affinity that such valuations have with those modes of behaviour that are most properly described as instinctive. Instinctive actions seem to be best understood as actions that involve a definite adjustment of means to end, but in which the relation of means to end is either not clearly or not at all conceived. Now, in what is called an instinctive preference, we are generally pretty definitely aware of the relation of means to end. What we are not definitely aware of is the ground on which the end is selected. Sometimes this may mean that we are not clearly aware of a more remote end; but it may sometimes be the case that the ground is not properly to be described as an end at all. The real ground for the selection of a particular end may rather be

that it is an instance of something that is intrinsically good. What we are not clearly aware of may be the relation of the particular to the universal, rather than that of the means to the end. Still, such a lack of clearness is akin to that which is found in instinct, and is an instance of the presence of an idea which is rather implicate than free.

3. *The Meaning of Free Choice.*—When we say that human beings have free choice, we do not mean that they can bring about whatever they like, or whatever they regard as best, or whatever they think right. Even those who hold most strongly that Right is Might, would hardly go so far as this. They mean, however, at least that valuation is a force to be reckoned with. And it seems clear that this much has to be recognized. The fact that there is that tendency which is called gravitation, and the fact that there is that tendency which is called evolution, render the movements that take place in our world different from what they would be without those tendencies; and the same is true of the tendency to appreciate values. The fact that people in general regard some actions as right and others as wrong has some influence in giving rise to the former actions rather than the latter. Similarly, the fact that a certain individual regards a particular object as better than another has some influence in procuring or retaining the former rather than the latter. Even a purely animal preference has such an influence. There would be no nests if birds did not like to make them, and select suitable places and materials for them. But their preferences are, in general, fixed for them by their organic constitution; whereas human preferences are determined by the more or less reflective apprehension of grounds. The ground may be the mere fact of liking; but at least it is hardly ever the mere liking of the organism. Usually it is the recognition of something as being, in some more or less definite sense, the best among a number of possibly alternatives. Now, it is at this point that some difficulties have been raised. It has been thought that to recognize possible alternatives is to deny the universality of the causal order, and so to introduce an element of contingency into the universe. This we must now consider.

4. *Contingency.*—It has been urged by some—not always with special reference to the problem of freedom—that the general laws or uniformities that are generally accepted as holding in the universe, as we commonly apprehend it, should all be regarded as subject to some exceptions. Poincaré, for instance, maintained this with particular reference to the conservation of energy, especially in connection with the closely related problem of the interaction of mind and body. We have already seen ground to doubt whether it is necessary to suppose that there is any such exception in that case. It is true, however, that there are very few general principles that may not be supposed to be liable to exception. There seems to be some doubt, for instance, whether the law of gravitation applies to all objects that can properly be regarded as occupying space. With that we need not concern ourselves at present. It is enough at this point to urge that there does not appear to be any real ground for supposing that the general principle of causation is violated by the fact of choice. The fact of choice rather supplies us with a fresh illustration of the significance of the causal order. There are, as we have seen, several different tendencies summed up in the general conception of causation ; and they are all liable to be interfered with by other tendencies, without any violation of the general principle. The fact that plants, in general, grow upwards does not violate the law of gravitation, any more than the eruption of a volcano violates it. But the tendency downwards is counterbalanced by the opposite tendency involved in organic growth ; just as two purely mechanical tendencies to movement in opposite directions may counteract one another, and give rise to rest. The principle of conservation of energy, in like manner, is not violated by the transformation, as it is commonly expressed, of actual into potential energy—i.e. by the cessation of particular types of motion, or even of motion in general. So also the tendencies in the world to various kinds of movement, or tendencies that would lead to rest, may be counteracted by the power of choice. But choice acts in an orderly way ; just as gravitation or evolution means an orderly way in which certain tendencies to change are discovered. A world in which there is choice is a very different thing

from a world without it ; just as a world without gravitation or evolution would be very different from a world in which these tendencies are to be found. But none of these is a violation of causal order : they are all illustrations of what causal order means. It is apt to be thought, however, in this particular case, that to recognize orderliness is to deny freedom. Dr. Ward, in particular, has recently maintained this, holding that human freedom implies contingency, in a sense that is incompatible with the general principle of causal sequence ; and many others appear to incline to the same opinion. In order to deal with this contention, it is necessary to consider the meaning of self-determination, and the way in which it is to be distinguished from other modes of determination. This may enable us to see more clearly what is implied in freedom of choice.

5. *Self-determination*.—Everything may be said to be, in a certain sense, self-determined. Causation does not mean that one thing is crushed or enforced by another, but only that there is a regular order by which the changing phases of distinguishable objects are related to one another. But, as Kant put it, while other beings are determined by law, human beings are determined by the idea of law, or at least are capable of being so determined. There are grounds, or at least general conditions, for all things that happen ; but human beings know, to some extent, what the grounds are. The knowledge of good and evil, in particular, becomes for them a guiding principle. It may be, as some have thought, that evolution is really guided towards the better—that the *élan vital*, as Bergson calls it, is a struggle towards more and more perfect forms. But, if it is so, we may at least say with some confidence that most of the individuals that are concerned in this struggle are unaware of the principle by which they are guided. In this sense, they are not self-determined. If they are guided towards the better, at least they are not guided by any conscious choice of the better. Now, it is no doubt true that this is, to a large extent, the case with human beings also. They do not always very definitely choose the ends towards which they move ; and, even when they do choose, it is pretty obvious that their choice

is sometimes a wrong one. The important point, however, is that they *can* choose, and that they can, by taking thought, make their choice more and more nearly right. If the general view that we have taken of choice is correct, it depends on valuation; and valuation, as we have seen, undergoes development. Hence the kind of choice that an individual makes is dependent on the stage at which he stands in the development of his valuations. Now, the attitude of conscious valuation is so essential an aspect of human life, that it is not unfairly regarded as constituting the true nature or self of an individual—especially when his nature is being regarded from the point of view adopted in moral judgments upon character. What a man likes is a pretty good indication of what he essentially is; but what he chooses, whether he likes it or not (on grounds, that is to say, which may be rather objective than subjective), gives a still more definite indication of what he is, at least at the particular moment when the choice is made. Whether this can rightly be regarded as his total or permanent self, is another question, which we shall have to consider in dealing with the problem of personality. In the meantime, it may suffice to state that, as human beings develop, the attitude of valuation at any particular time can hardly be taken as any final indication of the potentialities of the self. But it is an indication, so far as it goes; and, so far as this is the case, the choice of the individual is a free expression of what he intrinsically is. The quality of valuation is not strained. It is not determined by any principle more comprehensive than itself. It is in this sense that it seems to be rightly described as self-determined. But it is desirable, even at this point, to make some further reference to the element of growth that is involved in valuation, which prevents it from having any absolute finality at a particular time, and makes it difficult for us to say what a person, in his deepest essence, really is.

6. *Lower and Higher Selves.*—The appeal from Philip drunk to Philip sober may be taken as typical of human judgments in general.[1] The point of view from which our

[1] Freud's conception of a Censor is interesting in this connection. See, for instance, his book *On Dreams*, pp. 88–9. Also Morton Prince, *The Unconscious*, pp. 509–14. Plato's comparison of the unity of the individual life to a kingdom has a similar significance. The higher authority has a Veto on the lower.

valuations are made, is constantly liable to transformation; and such a transformation is sometimes almost equivalent to a new birth. A thorough education may give rise to a quite new outlook on life; so may a change from poverty to riches, or from riches to poverty; so may a fresh discovery in science, or the sudden illumination of a new idea, or a new vision of beauty, or the influence of a forceful personality, or a great national crisis. What, in religious language, is commonly referred to as conversion, is a striking illustration of such a change. Changes of this kind are sometimes so great that it is hardly an exaggeration to describe them as the creation of a new heaven and a new earth. The general structure of our world remains—though our view even of that may be greatly modified; but at least our valuations may be almost completely altered. Now, the kind of change that may be thus effected on a large scale, is continually taking place in a smaller and more gradual way. The changes from childhood to youth, and from that to maturity and old age, even when no remarkable crisis occurs at any particular point, nearly always involve great transformations in our modes of valuation and choice. Even Wordsworth, who seems to have been specially anxious that his days should be "bound each to each," seems to have been a distinctly different person in his age from what he was in his youth. Thus the point of view of an individual self, though containing a certain element of persistence, cannot be regarded as a fixed standpoint. And what is specially important for our present purpose, is that the point of view may be a lower or a higher one. This depends clearly on the extent to which our valuations are in accordance with what is intrinsically good. They are probably never entirely so. To determine what is intrinsically best is extremely difficult, but one may be more or less definitely on the way to it. Our choice may be less and less determined simply by individual liking, and more and more by the conception of what is objectively best. In a sense, no doubt, we may be said to be less purely self-determined as we advance to the higher standpoint. The sense of moral obligation, or even of æsthetic or scientific standards, may present itself to us as an external constraint. But the more fully we are able

to apprehend and appreciate such standards, the more do we recognize them as being implied in our less reflective valuations ; and so as not being in reality foreign to ourselves. The distinction between the more purely subjective and the more objective standards is, however, of so much importance, that some further consideration of it seems to be called for here.

7. *The Subjectively Good and the Objectively Good.*— When Socrates said that "no man is willingly deprived of the Good," he stated what is in one sense a truism, in another a paradox. To choose is, no doubt, always to choose something that appears to us relatively good ; but the point of view from which the estimation is made, may be a very inadequate one. The valuation that is involved in our choice, may be based simply on individual liking, or on a calculation of individual happiness ; or it may be founded on a definite attempt to consider what is best on the whole. What Socrates appears to have meant, was that any one with a complete insight into the true meaning of value would inevitably place himself at the latter point of view. This does appear to be the case. No one whose taste is highly cultivated continues to be satisfied with what is not really beautiful. No one with a genuine insight into the results of scientific investigation continues to entertain opinions that are at variance with these results. And the same seems to be true with reference to moral valuations. But it may be said, with some confidence, that no human being has an infallible taste or perfect knowledge or a thorough insight into what is absolutely right ; and many are not even particularly eager in the pursuit of such perfection. Hence some, though they may be said to be "not willingly" deprived of the good, are nevertheless "willingly wicked," in the sense that they are not anxious to bring their subjective likings into harmony with what is best, or to subordinate the former to the latter. Even if they do recognize what is objectively best, and have some desire to secure it, they may fail to strive for it in any really effective way. In such a case, they would be generally described as rather "weak" than "wicked" ; but such weakness seems also to imply the absence of a sufficiently definite

adoption of the higher point of view. If we interpret will as meaning a thoroughly rational choice, the saying of Socrates may still be held to be true ; but on the right interpretation of this some further explanation may here be in place.

8. *Rational Choice.*—A choice may, in a limited sense, be called rational when it is the selection of means definitely adapted to the realization of some particular end. A Sardanapalus (if he is rightly regarded as having been of such a type) may subordinate everything to his personal enjoyment, and yet be thoroughly rational in the choice of his means. But such an attitude could hardly be regarded as completely rational. Reason, as Sidgwick has urged, would lead him to see that the enjoyment of other rational beings, if not even of all beings, has the same claim to be taken as an ultimate end as his own has. Even to aim at the maximum sensuous enjoyment of all could hardly be completely rational ; for, from a rational point of view, it would surely be clear that other things, besides sensuous enjoyment, have intrinsic worth. A thoroughly rational being could not, at least, be indifferent to the apprehension of truth, and hardly of beauty or perfect order. A completely rational choice must, it would seem, be the choice of right ends as well as right means. The point of view of reason is that of universality ; it is the point of view from which intrinsic value is apprehended ; and, as rational beings, we cannot be satisfied with less. What satisfies us, what we value, what appears to us to be in the fullest sense beautiful, when we look at it from this point of view (or, as Spinoza would say, *sub specie æternitatis*), would seem to be the best way —indeed the only way—in which we can define what is ultimately good. This we may be in a better position to consider fully at a later stage. In the meantime, it seems clear at least that, if it is in such a way as this that we are to understand what is meant by a rational choice, all or almost all human choice must be, in some degree, irrational. We have always to assume that something is good, or the means to what is good, without being able to see with perfect clearness that it is so. But, from a human point of view, choice may fairly be characterized as rational when it is the

nearest that we can get to such a complete apprehension of what is best. Such a choice may at least be properly described as being subjectively right. And it seems clear that, in this sense, it cannot be maintained that every one chooses what is best, or even what seems to him to be best. Some are wicked, some are weak, and some err from defective vision. A recent writer, in a very interesting book,[1] has stated that "men are generally willing to do what is right not merely for themselves, but for their group or even for all humanity, but they do not *know* what it is right to do." It is probably true that no one would, in the abstract, prefer what is wrong to what is right. No one would definitely say, like Milton's Satan, "Evil, be thou my good," or even, with Richard III, "I am determined to prove a villain."[2] But it is to be feared that there are many who are less eager to secure what is right than to secure what is pleasant, or who hunger and thirst for wealth or power rather than for righteousness or justice; and perhaps a still larger number who are guided by instinct or impulse or by custom or tradition, rather than by any serious effort to discover what is best. It can hardly be denied that such people are, in varying degrees, "willingly wicked," or at least not very unwillingly. Indeed, it seems probable that this is to some extent true of us all. "Virtue," as Hamlet said, "cannot so inoculate our old stock but we shall relish of it." There always remains some distinction between what we value and what is intrinsically valuable. Even the saying that "we needs must love the highest when we see it," is probably true only in the sense that we could not really see it till we were prepared to love it. In this sense it seems to remain true that all moral failure is due to defective vision.

[1] C. D. Burns, *The Morality of Nations*, p. 105.

[2] It is perhaps worth noting that even Satan and the Duke of Gloucester are represented as having tried methods that were at least a little better before their final plunge. Even the most disreputable criminals generally excuse their actions by referring to the conditions of their lot which have made a really good way of life almost hopeless. Sometimes they add that their actions are not intrinsically worse than those of many others whose reputations are comparatively unsullied. Still, it remains true that they have not chosen as well as they might have done; and that, by repeated failures in this respect, it has become more and more difficult to choose rightly. But there remains always a good deal of force in the old saying, "There, but for the grace of God, goes——." Certainly our scale of valuations is a delicate instrument, easily disturbed.

9. *The Possibility of Prediction.*—It is sometimes urged that, if a man is free in his choice, his choice cannot be predicted.[1] Theoretically, this contention does not appear to be sound, without some qualification. One thoroughly rational being, it may be contended, could predict the action of another thoroughly rational being in any circumstances that were fully known. With beings who are not thoroughly rational, the case is of course somewhat different; and there is at least one sense in which prediction, in such a case, is not even theoretically possible. When Laplace spoke of the possibility of calculating the future states of the universe, he appears to have ignored the emergence of qualitative differences. Only what is purely quantitative can be calculated. If we suppose a state of the universe in which there was as yet no apprehension of sound or colour, no one in such circumstances could predict what sound or colour would be like. Similarly, in a universe without valuations, no one could predict what valuations would be made. And to predict the valuations of any particular person, it would be necessary not merely to have a thorough apprehension of his present point of view and of the future circumstances in which he would be placed, but also of the way in which his valuations would be modified by the new conditions. Such a prediction does not appear to be even theoretically possible, except for omniscience. If, however, there is a definite causal order in which events occur, and a definite order in the evolution of human valuations, it would seem that it would be theoretically possible for any one who thoroughly understood these orders to foretell the choice that would be made by any person at any time. But this is only to say that omniscience would be omniscient. And of course it rests on the supposition that there is perfect order, and no real contingency. How far we are justified in making this supposition, we shall have to consider later. In any case, it seems clear that, for a being who is not omniscient, prediction is not possible. For such a being, every real choice takes place in a new situation; and the being who chooses has himself been developing in the meantime. This has been very brilliantly brought out by M. Bergson, who, however, does

[1] See, on this subject, Bradley's *Ethical Studies*, note to Essay I.

not, I think, lay sufficient emphasis on the place of value in the determination of choice. He thus makes it appear as if it were largely blind.[1]

10. *The Relation of the Moral Judgment to Free Choice.*— The interpretation that has now been put upon free choice may help us to see in what sense it is that moral judgments are concerned with it. The moral end, we may here assume, is the realization of what is intrinsically good. The rightness of actions and the goodness of persons is ultimately estimated by their direction towards this end. It is generally recognized, however, that what is intrinsically good is not fully known either by the person who judges or by the person who is judged. Hence, on careful reflection, we tend to pass judgments rather with reference to the effort to secure what is best than to the actual securing of it, or even to the clear apprehension of what it is. If this is admitted, we are able to set aside certain paradoxes that have, from time to time, been current. The view of Socrates, in particular, that virtue is knowledge, can hardly be accepted, even when it is understood, as in any case it must be, to mean that virtue consists in the apprehension of what is intrinsically good. It seems clear, as Aristotle urged, that human virtue does not consist in its apprehension, but in its pursuit. This no doubt implies some degree of apprehension of it; but it does not imply any thorough knowledge; nor does it appear that its excellence is strictly in proportion to the clearness of its apprehension. Philosophers are not necessarily better than other people. Still more do we seem bound to reject the favourite doctrine of Carlyle, that all intellectual excellence is based on moral excellence; though this contention is, to some extent, instructive. A fool (unless he is only a "gooseberry fool," like Goldsmith) is perhaps always something of a knave as well. His folly will generally include some lack of appreciation of the importance of right action.

[1] Bergson's view of freedom has often been criticized on this ground. His doctrine is most fully given in *Time and Free Will*, especially chapters ii and iii. For discussions relating to it, reference may be made to Jevons's *Personality*, pp. 109–15, Russell's *Our Knowledge of the External World*, pp. 229–33, Pringle-Pattison's *Idea of God*, Lecture XIX; as well as to several works dealing expressly with Bergson's philosophy.

A knave also is generally something of a fool. A sin is essentially a blunder; and the man who blunders into sin is rather likely to blunder in other ways as well. But he may apprehend many important truths, and reason skilfully with regard to them, though he lacks the one thing that is needful for the moral life. What Carlyle meant was probably that cleverness does not deserve any high esteem when it is not guided by an appreciation of ultimate values. And no doubt this is worth emphasizing. In judging the work of poets or statesmen, and especially in judging their personalities, we rightly place their appreciation of values, and the extent to which they are guided by such appreciation, in the highest place. But this would hardly be true of our judgment of the work of a mathematician, though even there a lack of appreciation of the value of truth might tend to weaken his work. Thus it would seem that there is some exaggeration in the view of Carlyle; and there is a still more extreme exaggeration in the Stoical attribution of every kind of excellence to their Wise Man. Moral excellence seems to be one specific kind of excellence, though it is one that is rightly regarded as being of the highest importance in human life.

It may be well to add, however, that we are rather apt to exaggerate the distinction between those qualities in human life that involve choice and those that do not. I think there is some exaggeration of this kind in the otherwise excellent treatment of Free Will by Dr. McTaggart. "A man," he contends,[1] "who gives water to a thirsty dog has willed rightly. If that man were Shakespeare, or Newton, or Kant, should we be prepared to say that that volition had more value than anything in his nature except some other volition? Surely most people would regard the intellect which was capable of producing *Hamlet*, or the *Principia*, or the three *Critiques*, as of greater value." But the man who gives water to a thirsty dog (if this is all that can be said of him) acts rightly only in the sense in which a man acts rightly when, in trying to find his way out of a wood, he happens to choose a path that takes him where he wants to go. There is certainly not much to value in such a volition. It

[1] *Some Dogmas of Religion*, chapter v, § 129. The whole chapter is very good.

becomes good only when it is not only right, but known to be right, and chosen with the view of bringing about a good result. This involves intellectual insight, as well as volition. On the other hand, no intellect, simply as such, would be "capable of producing *Hamlet*," without the exercise of a very strenuous volition, guided by moral conceptions. Apart from such a volition, it is not quite so obvious that the intellect would be very highly valued, or at least that its valuation would not depend on its being regarded as furnishing the means for a voluntary action. In this sense, as even Kant would allow, wealth, health, station, etc., may have very high value. I ought to add, however, that, even if this criticism is just, it does not invalidate the essential point in Dr. McTaggart's argument.

It is sometimes suggested that we have no right to judge moral excellence in any other way than that in which other modes of excellence are judged. We have no right, it is contended, to blame people for deficiencies in their choice, any more than for any other kind of defect, such as colour-blindness, weakness of memory, lack of imagination, or slowness of perception. For, it is urged, though we may be said to be free in choosing, yet we do not really choose our choice. We choose in accordance with the point of view that we happen to occupy; and this may be traced back to some influence of heredity or nurture. This may be partly met by urging that we do, to a certain extent, choose our mode of choosing. Our choice at a particular moment is largely conditioned by habits of choice that have been previously formed.[1] But it still remains true that these habits can be traced back to influences that were not wholly, or even mainly, dependent on our choice. The general answer to this seems to be that, from the point of view of the universe, it may very well be that no one has any ultimate responsibility for his choice. But the point of view of human judgments is not that of the universe. There may be a point of view that is, in this particular sense, "beyond Good and Evil"; but for us at least the realization of what is good is that which is supremely important; and, though

[1] This point is very well brought out by Dr. G. E. Moore in his very lucid treatment of Free Will in chapter vi of his *Ethics*.

no one can completely realize it, or even be quite sure that he is on the right road, yet every one can, to the best of his ability, place himself in the attitude of pursuing it. When any one fails to do so, he is, from a human point of view, rightly blamed both by others and by himself; for, as a being potentially rational, he is not essentially limited by this kind of defect, and he may, by taking thought, gradually remove it. He cannot, in any similar way, add a cubit to his stature, or remedy his colour-blindness or defective memory or lack of special aptitudes in other directions. It is always open to every one to do his best; and both self-criticism and the criticism of others are excellent incentives to this. Hence, even allowing that it may not be right to blame or to commend any one from the point of view of the universe, it seems clear that such an attitude can be thoroughly justified in human beings. No definite limits can be set to the possibility of choosing rightly; and we may always strive after improvement in this respect, both in ourselves and in others. This, it may be objected, is only a practical justification; but then it has reference to a practical thing.[1]

11. *Causality and Freedom.*—The view of causation that has been previously set forth may now be brought into more definite connection with the problem of freedom. Hume rightly emphasized the fact that there is no real opposition between necessity and freedom. The difference lies merely in the different structures of the organizing principles that are involved. "A prisoner," as Hume says,[2] "who has neither money nor interest, discovers the impossibility of his escape, as well when he considers the obstinacy of the gaoler, as the walls and bars with which he is surrounded; and, in all attempts for his freedom, chooses rather to work upon

[1] The substance of this section is, I think, simply a repetition of the doctrine that is stated by Aristotle in Book III of his *Ethics*; but it seemed necessary to reproduce it at this point in order to make clear the conception of free choice that is here adopted. For further discussion reference may be made to the statements already noticed, by Drs. McTaggart and Moore, to the more purely psychological treatment in Professor Stout's *Manual*, and to the summing up in Professor Mitchell's *Structure and Growth of the Mind*, pp. 407–17.

[2] *Inquiry concerning Human Understanding*, § viii.

the stone and iron of the one, than upon the inflexible nature of the other." "Were a man, whom I know to be honest and opulent, and with whom I lived in intimate friendship, to come into my house, where I am surrounded with my servants, I rest assured, that he is not to stab me before he leaves it, in order to rob me of my silver standish; and I no more suspect this event than the falling of the house itself, which is new and solidly built and founded." "A man who at noon leaves his purse full of gold on the pavement at Charing Cross, may as well expect that it will fly away like a feather, as that he will find it untouched an hour after." Such illustrations, however, serve to bring out the difference as well as the identity. The prisoner would be much more surprised to find that the iron bars had suddenly melted than that he had suddenly received a pardon. Hume himself would probably have been less surprised by a change in his friend's attitude than by one in his house's position. And, though it is pretty certain that the purse would not be untouched, there are different ways of touching it: it might be appropriated by the finder, or it might be returned to its owner. Human actions, which depend on valuations, are much less rigidly determined than physical events, which depend on more purely mechanical principles. But the difference is one of degree. There is a progressive advance in the flexibility of the modes of determination, and in the extent to which they can be explained from the inner working of the system, as we pass from the lower to the higher modes of unity. Hence, instead of speaking of an opposition between necessity and freedom, it seems better to recognize degrees of freedom in the operations of different modes of being. We may even add, with Hegel, that "the truth of necessity is freedom," in the sense that necessity means simply that each mode of being behaves in accordance with its own inherent structure. But that structure may be more or less self-contained and self-explanatory.

12. *Freedom as an Ideal.*—It seems to follow from what has now been stated that it is better to regard freedom as an ideal that is aimed at in human life, and that is gradually realized in it, rather than as an actual possession. M. Bergson

has urged that it is only on comparatively rare occasions that we can properly be said to exercise freedom.[1] In general, our actions are habitual and comparatively mechanical. Even our valuations tend to be accepted, to a considerable extent, on trust and from tradition. We only become, in the fullest sense, free when we have a clear apprehension of what is best and determine our action by it. Nothing, it would seem, can be completely self-determined except what is also completely self-explanatory. Sidgwick tried to emphasize the distinction between that kind of freedom which he described as "neutral" and that which he characterized as "good." He urged this distinction chiefly in his criticism of the doctrine of Kant, according to which it would appear that only "good" freedom is intelligible.[2] The freedom of the man who chooses wrong is limited by his lack of insight, or by the insufficient degree in which his insight has become the dominant principle in the control of his behaviour. As there appears to be always some degree of such limitation in human choice, we can only say that human beings are partly free and may hope to become more so. What prevents them from being wholly free is a defect in their nature which can be gradually removed. Hence the significance of moral education, and of all the efforts that are made throughout life to strengthen our vision of what is best and to co-ordinate it more closely with our modes of action. But the general significance of this may become clearer after we have considered the nature of personality and the spiritual unity of mankind.

[1] See *Time and Free Will*, pp. 167–70. He does not appear, however, to explain very clearly what the occasions are and how they arise.

[2] It was with reference to "neutral" freedom that Kant maintained that we can only "comprehend its incomprehensibility." For Sidgwick's criticisms, see the appendix to the 6th edition of his *Methods of Ethics*; also *Ethics of Green, Spencer, and Martineau*, Lecture II.

CHAPTER X

THE NATURE OF PERSONALITY

1. *The Development of Individuality.*—The consciousness of free choice gives to human beings a kind of individuality which is not possible to beings who lack that consciousness. This consciousness, however, is one that is only gradually developed. Hegel said that in early societies only one—the supreme ruler—was recognized as free; and that gradually the recognition of freedom became extended to larger and larger numbers, until at last it is acknowledged that all human beings can lay claim to freedom. Human history is thus regarded as the process by which freedom is gradually acquired; by which, that is to say, individuals learn by degrees that they *are* individuals—beings who have a certain power and right to shape their own destinies. The recognition of this involves some breaking away from the simple consciousness of the group, and may very well lead even to a violent rupture with it. When man first realizes that he is born free, he realizes at the same time, as Rousseau expressed it, that he is everywhere in chains. There are times at which such a consciousness becomes specially acute. The time of the Sophists in ancient Greece was such a time; that of the Reformation was a second; and that of the French Revolution was a third; and each of these movements had far-reaching consequences throughout many succeeding generations. At such times the individual becomes keenly conscious of himself. He tends to withdraw, as far as possible, from the social order in which he has been living. He goes to his tub, like Diogenes; or contents himself with private friendship, like the Epicureans; or doubts everything but his own existence, like Descartes; or culti-

vates his garden, like the Voltairean hero ; or preaches the will to power, like Nietzsche ; or loafs and invites his soul, like Whitman. In some way or other, he seeks to live his own life, rather than the life of the herd. He feels himself to be a person, with a certain completeness and self-sufficiency of his own. It is probably true that it is usually in comparatively small communities, where the individual is not too much overwhelmed by the crowd, that this development of individuality takes place most readily. "Large, massive, social organisms," it has been said,[1] "produce, as a rule, very small persons. Great men are not to be found in ancient Egypt, Babylon, Assyria, Persia, but rather in the diminutive communities of ancient Greece and Judea." Even in our modern large democracies, it has often been noted that "the individual withers, and the world is more and more." But this is only partly true. It is in some respects easier to have a certain self-completeness in a large society than in a small one, when the conception of individual liberty has been well developed. It is this completeness of the individual life that we have now to consider.

2. *The Continuity of the Individual Self.*—Descartes, as we have already noted, emphasized the substantiality of the individual thinking being, though allowing that its persistence requires a special act of conservation at each successive moment. Hume, on the other hand, denied that we have any consciousness of a permanent or self-identical element in our experience. Kant represented the individual self as having a certain persistence, but not such as to warrant the attribution to it of any permanent substantiality. This last view would seem to be the most correct. It is clear that some kind of persistence is involved in our conscious life. It is obviously not like a rope of sand, made up of isolated particles. Every moment in our conscious life is a transition, a change ; and change, as Kant contended, implies persistence. Both the objects that we apprehend and our attitude towards them continue to be, in many respects, the same ; though both are almost constantly undergoing change.

[1] Sidis, *The Psychology of Suggestion*, p. 299.

Certain forms at least remain, as in the flowing of a river.[1] And this is true, not only of the stream of our conscious experience, but also of the organic structure to which that stream is closely related. It also changes; but, for considerable periods of time, the changes are hardly perceptible. It is only after a long interval that it becomes difficult to detect the identity; but certainly there are stages at which, both in our organic and in our conscious life, such a difficulty is liable to present itself. The child is not always, in any very definite way, the father of the man, either in bodily structure or in attitude of mind.[2] The grave senator, or anxious man of business, may be as complete a contrast to the light-hearted schoolboy in his valuations and modes of apperception as in his bodily appearance and habits. Something he does carry on with him from his past experience —some memories, probably some regrets and some self-criticism, and a certain summing up of the general results of what he has learned; but, in many cases, if he could be transported back to a definite apprehension of his former existence, he might have a considerable difficulty in recognizing it as his own. He is not perhaps as widely different as the butterfly is from the caterpillar, yet it is not easy to regard him as being quite the same person. Even those who dwell with most interest on their past, like Rousseau, are apt to call up the external circumstances, the things and persons that they have known, with more distinctness than

[1] Compare the last of the series of Wordsworth's sonnets on the River Duddon:—

> Still glides the stream, and shall forever glide.
> The form remains; the function never dies, etc.

[2] Mr. Roosevelt (who surely is not lacking in individuality) suggests in his *Autobiography* that the saying of Wordsworth should be interpreted rather more literally than is commonly done—in the sense, namely, that the child is an *ancestor* of the man, rather than the same person. It may be noted that Wordsworth himself, in describing his early life in the *Prelude*, indicates a similar sense of the absence of complete identity. "So wide," he says, "appears

> The vacancy between me and those days
> Which yet have such self-presence in my mind,
> That, musing on them, often do I seem
> Two consciousnesses, conscious of myself
> And of some other being."

In the *Lines above Tintern Abbey* there is a somewhat similar expression of divorce from self.

what they themselves were. Most people's interest in themselves is rather forward-looking than backward-looking, though no doubt this tends to become less true as life advances. Still, except in some extremely morbid cases, every one does, in some degree, regard his own life as a continuous whole, and is prepared to recognize in the lives of other persons—sometimes rather more readily in the lives of others than in his own—a similar continuity. Such a continuity may no doubt be ascribed also to rivers or mountains or to plants and animals; but what gives it special significance in human beings, is that it is not a mere persistence of objects, but of attitudes, and especially of attitudes in which conscious valuations are present. So important is this felt to be that, even when we ascribe persistence to inanimate things, we tend, in some degree, to personify them. What gives special interest to a person is the fact that he has persistent modes of choice—in other words, that he has or is a character. "A man's Ego," as Royce urges,[1] "exists as one Ego, only in so far as he has a plan in life, a coherent and conscious ideal, and in so far as his experience means for him the approach to this ideal. Whoever has not yet conceived of such an ideal is no *one* Ego at all, whether you view him empirically or metaphysically, but is a series of chance empirical selves, more or less accidentally bound together by the processes of memory. . . . The empirical ego, apart from the unity of life-plan, can be as truly called a thousand selves, as one Self." Of course these many selves are bound together, not only by the processes of memory, but also by the continuity of the physical organism.[2]

3. *Individual Character.*—The interest in individual character has developed slowly, growing along with the

[1] *The Conception of God*, pp. 291–2.

[2] In some cases of "multiple personality," however, we have two different attitudes of consciousness connected with the same organism, with little or no continuity of memory between the two. For examples of these, reference may be made to *Multiple Personality* by Sidis and Goodhart, *The Dissociation of a Personality*, by Morton Prince, Binet's *Alterations of Personality*, *Diseases of Personality* (especially chapter iv) by Ribot, and others. Some interesting illustrations of changes of personality are given by Count Keyserling in his book on *Unsterblichkeit*, chapter iv. Ribot's account of the relations between the personalities of twins (especially pp. 43–4, 49–50) is interesting.

recognition of individual freedom. "A character," according to the famous saying of Novalis, "is a completely fashioned will"; that is, it is not merely an attitude of choice, but an attitude that has a certain persistence, a mode of affective and practical apperception. If we contrast ancient and modern literatures, it becomes pretty obvious that the interest in individuals is immensely greater in the latter than in the former. In Jewish history, for example, the characters of the individuals are strictly subordinated to the destiny of the race. The comparative coldness of classical art seems to be due largely to the fact that its characters are rather types than individuals. Even Plutarch's *Lives* were arranged as types, somewhat like the *Characters* of Theophrastus. It was probably not altogether by accident that the English drama of individuality, of "every man in his humour," was developed so soon after the individualistic movement of the Reformation, and that the modern novel took shape in the age of Rousseau. His *Confessions*, or the pageant of Byron's bleeding heart, or the meticulous probing of the heart of the individual in the writings of Henry James, would hardly have been possible in an earlier age, though no doubt some partial anticipations of them may be found (but nearly always at times when there was some general tendency for individuals to break away from the bondage of their social environment).

4. *Individual Self-assertion.*—The consciousness of individuality, which may be said to grow out of the consciousness of freedom, tends to give a fresh emphasis to the latter. The individual, who is aware of himself and others as persistent persons, is not merely conscious of the fact of free choice, but tends to emphasize the right to exercise it freely. He is apt to become a lover of paradox, and to seek to display his originality in various unusual modes of action. He may even dislike to be too consistent, lest he should seem to be bound by an external rule. But such eccentricities tend to be somewhat restrained by the recognition of the personalities of others. The conception of liberty is checked by that of equality; but both are apt to oppose themselves to the rule of custom. The conception of laws based on the general

will, and recognizing rights in every human being, tends to be substituted for the traditions of the group.

5. *The Value of the Individual.*—Individuals, who recognize themselves as centres of valuation, are naturally led to attach a peculiar value to themselves. Other things have value for them, but they have value for themselves and for one another. This was specially emphasized by Kant, in his conception of a kingdom of ends. Each individual, he contended, has to regard himself at once as a lawgiver—i.e. as an ultimate authority on what has supreme value—and as subject to the law which he himself sets up. Hence he can never regard himself as merely a means to an end that is foreign to himself. The end that he pursues is essentially his own end, a good that he himself recognizes as such. It would seem, however, that this contention has to be qualified by what has been already urged with regard to the lower and the higher self. The self that is lawgiver is the self that apprehends what is ultimately good; and, as we have seen, this point of view is always for us an aspiration rather than an achievement. Still, the fact that this aspiration is involved in the consciousness of every rational being, and that it is only for such a consciousness that any apprehension of what is ultimately good appears to be conceivable, does enable every such individual to think of himself as an ultimate arbiter of good and evil, and so as a standard of value rather than merely one of the particular things that are valued. The higher religions—notably Christianity and Buddhism—have laid stress on this. "What shall it profit a man if he gain the whole world and lose his own soul?" "The Son of Man shall judge the quick and the dead." For the Buddhist also it would seem that the highest end is thought of as a personal attitude. It is doubtful, however, whether such an end can be properly described as purely individual. This will have to be more fully considered shortly. In the meantime, it must suffice to note here that the fact that every rational individual can, and even must, regard himself as being on the way to such a point of view, prevents him from thinking of himself as merely a means to something that has a value wholly apart

from himself. On the other hand, he has also to recognize that he is only on the way to the point of view from which absolute value can be apprehended, and that consequently, as this particular individual, he cannot properly claim to be either an absolute standard or an absolute end.

6. *The Self and its Embodiment.*—We have to recognize further, that the individual, as we know him and as he knows himself, is not a pure spirit, but an embodied personality; and it is hardly possible for him to treat his existence, as such a personality, as a thing that possesses any absolute worth. Bagehot said that "we are souls in the disguise of animals"; but sometimes the disguise is a pretty complete one. Some degree of self-sacrifice is inevitably called for in such an existence; and such sacrifice, when voluntarily endured for the sake of something that has great value, has always been regarded as one of the finest expressions of human personality. It is recognized that there are conditions in which he who loses his life saves what is best in it. Indeed, the very development of an individual's life is a continual losing of what he was for the sake of what he hopes to be. But, so long as he retains any recognizable individuality, the development is one that goes on in a continuous stream of conscious experience, and in constant connection with an organism that has a similar continuity. Whether the stream of consciousness could be separated from the continuous life of the organism, without loss of individuality, is not easy to determine. Transmigrations of souls from one organism to another were a favourite subject of speculation in several schools of ancient thought; and there has been a marked tendency to revive such speculations in recent times. This is at least partly due to the decay of purely materialistic interpretations of human existence. It is more and more recognized that the activity of consciousness cannot be regarded simply as a function of the brain, or its content as being something that is stored up in that organ. How subconsciousness is to be interpreted, is still an unsolved problem; but at least that solution does not appear to be a tenable one. Even when this is granted, however, the connection of a particular

stream of conscious experience with the continuous existence of a particular organism is still too intimate to make it easily intelligible that the one could be separated from the other without the loss of a large part of what constitutes the essence of individual personality. The bodily organism is at least the mechanism with which we have learned to work. As already noted, we have taken over in our conscious life a large part of its unconscious preferences ; and our more definitely conscious valuations are to a considerable extent conditioned by these.[1] Again, our thought processes can hardly be carried on without the instrumentality of language ; and, whether words are spoken, written, or conveyed by gestures, whether they are apprehended by sight, hearing, touch, or motor sensations, they are in any case known to us in some way that is conditioned throughout by our bodily structure. Our general habits of action are similarly conditioned : there appears to be no mode of behaviour that does not involve bodily movement. Hence the whole personality of a conscious being, as we know it, is intimately bound up with its organic existence. Even so extreme a dualist as Descartes had to admit that in a human being soul and body seem to form an indissoluble unity. Thus the conception of the transference of a soul from one body to another presents great difficulty. It would not carry with it the instruments in connection with which its personality has been developed, and through which it has been expressed. If the souls and bodies of Falstaff and Don Quixote could be interchanged, could either of them be supposed still to exist as the same person that he was before? No doubt, such a sudden transformation would hardly be contemplated by those who think of transmigrations ; but, in a less degree, it would seem that any transference would involve the same kind of difficulty. However carefully the soul might select its new abode, it would have so much to learn and so much to unlearn that it could hardly be regarded as being, in any

[1] The extent to which this is the case has been much emphasized by recent psychologists and sociologists. See, for instance, Dr. McDougall's *Social Psychology*, the chapter on Instinct in James's *Principles of Psychology*, Professor Graham Wallas's *Human Nature in Politics*, Mr. Russell's *Principles of Social Reconstruction*, chapter i, etc.

effective sense, the same person. It may be urged that at least gradual transformations do take place in the course of our ordinary experience. Even Falstaff had not always the big belly round which so much of his personality turned. He is represented as having had a very different configuration in his early life. Again, many are deprived of the use of particular organs by accident or decay; and yet we still think of them as the same persons. Milton, with "wisdom by one entrance quite shut out," was still the same Milton as before. But can we always recognize the persistence of a personality under such conditions? When the change is of a more extreme kind, as in senile decay or when the brain has been so injured as to give rise to insanity, can we properly say that the person remains the same? Some traces of his previous experiences and attitudes of mind do, no doubt, persist; but, in some extreme cases at least, everything that constituted the essential character of the person seems to have completely vanished. He is only like a bad actor mimicking an unreal person whom he does not understand, and whose part he only vaguely remembers. Even if all the men and women are merely players, we can, at any rate, think of them as persons only when the parts that they play have a certain inner coherence, the significance of which is more or less clearly apprehended by the player. If an infant is only a person in potentiality,[1] it would seem that a madman, a dotard, or a gibbering ghost could only be regarded as the pathetic ruins of what was once a person; and that a changeling would have to be thought of as, to all intents, a new person, though he might inherit (as perhaps we all do) some elements of the experience of another who existed before. However little we may incline to materialism, the divorce of soul and body can with difficulty be conceived as other than the destruction of the particular individuality that existed in their association.

7. *Embodiment in Extra-organic Objects.*—Nor is it only the bodily life that is thus intimately associated with a

[1] Stirner remarks that the boy tends to think that he will only be properly a person when he becomes a man; and that the man tends sometimes to think that he will only be properly a person in a future life (*The Ego and his Own*, p. 295). So far as this is true, it carries the suggestion that, in each case, he recognizes that he is to become a somewhat different person from what he now is.

particular personality. The continuity of our conscious life grows up, not only in connection with the mechanism of our bodies, but also with all those things with which we habitually work, with the objects in which we are interested, the persons to whom we are related, the material and the spiritual atmospheres that we have learned to breathe.[1] All of these may, no doubt, be gradually changed without destroying or seriously disturbing the continuity of our existence. We may change our profession, alter our habits, form new friendships and forget the old ones, interest ourselves in new ideas, transfer our habitation, our allegiance, and our language from one country to another, and still be conscious that we have not ceased to be the same persons as before. But, if all these changes took place at once, it would be almost as difficult to acknowledge our identity as if we had passed from one body to another. The severance of husband from wife, of a citizen from his country, even of an artist from his vocation, is sometimes felt to be almost as complete an extinguishment of life as the separation of soul and body. The body remains, and some sporadic memories and valuations may also linger; but the general meaning of the individual's existence seems to have almost totally disappeared. He has nothing left to live for; and sometimes he declines to live, or is unable to live, on such terms.[2]

8. *Personal Immortality.*—Notwithstanding such considerations, which have always been more or less obvious, the conception of personal immortality has nearly always had a considerable hold on the human race; and it would seem that, in recent times, its hold has been in some respects rather strengthened than weakened. The difficulties—at least those particular difficulties—have sometimes been avoided, by

[1] "In its widest possible sense," says William James (*Principles of Psychology*, vol. i, p. 291), "a man's Self is the sum total of all that we can call his, not only his body and his psychic powers, but his clothes and his house, his wife and children, his ancestors and friends, his reputation and works, his land and horses, and yacht, and bank account." Of course, these different elements in a man's personality are not all equally important; just as all organs in a living body are not equally vital.

[2] It is perhaps hardly necessary to give a reference for this; but the *Odyssey* might be mentioned as a work in which this attitude of mind is specially prominent. Even the dog of Ulysses seems to participate in the prevailing sentiment.

thinking of it as involving a resurrection of the body, as well as a continuity of the soul. People have imagined themselves as rejoining their friends—sometimes even their animal friends—in another state of being, better and more permanent than that which is lived on earth, but not in other respects intrinsically different; as finding themselves in a happy hunting-ground or in a beautiful city, where men and women would still be substantially the same men and women whom we know. Probably there are hardly any educated people who now retain such conceptions, though the recent book by Sir Oliver Lodge has tended to revive them. What is known of the growth and decay of organisms has made it almost inconceivable that they should be reconstructed in such a fashion. The view of immortality that appears now to be most in favour is that of reincarnation. Among recent philosophical writers, its chief exponent is Dr. McTaggart,[1] and perhaps its best critic is Dr. Bosanquet.[2] Dr. McTaggart bases his belief on the substantiality of the individual soul—a doctrine that it is not easy to maintain, in view of the objections that have already been noted. In any case, if this substantiality means simply the persistence of some entity with which our conscious life is connected, it does not appear that such persistence could be regarded as sufficing to constitute personal immortality, any more than the persistence of a house in which we might happen to have lived. What seems to constitute our specific individuality as persons is the compact system of our conscious possessions, and especially our valuations. These may, no doubt, be in abeyance for a time—as they are in profound sleep, or in our ordinary dream experiences, or even throughout considerable tracts of our waking life—without any loss of personal identity; but only on condition that they are recoverable. Now, it is certainly conceivable that a person might pass through a series of successive incarnations, in which the consciousness of his previous existences remained latent; and might at

[1] *Studies in Hegelian Cosmology*, chapter ii, and *Dogmas of Religion*, chapter iii. The emphasis on substance is to be found chiefly in the *Studies*, p. 37, and in the *Dogmas*, p. 129. See also Ward's *Realm of Ends*, pp. 387–408.

[2] *The Value and Destiny of the Individual*, Lecture IX. See also Bradley's *Appearance and Reality*, chapter xxvi, *Essays on Truth and Reality*, pp. 439–40, 451–9, 467, etc., and Guyau's *Non-Religion of the Future*, p. 522, etc.

last reach a stage in which his successive experiences would appear as a continuous development. In a small way, something of the kind does happen in our everyday existence. We pass, for instance, from one set of interests to another; and, while we are absorbed in the second, we may be quite oblivious of the first. Sometimes the change may be almost as great as that from Dr. Jekyll to Mr. Hyde.[1] Yet we may return again to the previous interest, and bring it into connection with that by which it was interrupted; and, in the end, we may realize that there has been no essential change in our personal attitude, but only that our consciousness has been enlarged and enriched by the double set of experiences. To suppose that our personal existence may be prolonged throughout a number of successive lives, in some such way as this, has undoubtedly a certain fascination; and, as it allows for breaches of continuity at the points at which the transition is made from one embodiment to another, it does not appear to be open to those objections that have been so far brought forward. It is felt that a view of this kind serves to remove the sense of incompleteness and frustration that we so constantly experience in the contemplation of the lives of those in whom we are interested. Even one whose life was so comprehensive as that of Goethe had, up to the end, a keen sense of the need for further expansion; and Kant urged that a continuous personal development is a necessary postulate for the realization of that perfection which is a demand of man's rational nature. Against such a contention, however, it may be urged that to think of such a perfect realization of the demands of our nature is to think ultimately of the removal of those limitations that serve to distinguish one personality from another. To recur to a previous instance, a perfectly good Falstaff or a perfectly wise Don Quixote would hardly be Falstaff or Don Quixote any longer. Hence some have tried to think of immortality rather as the gradual approximation to a condition that is essentially super-personal. This leads us to another conception that calls for some consideration.

[1] Mr. Morton Prince refers to the case of William Sharp—with his own normal personality and that of "Fiona Macleod"—as an illustration of this (*The Unconscious*, pp. 296–9).

The general subject of immortality will have to be further dealt with in succeeding chapters.[1]

9. *The Conception of the Super-personal.*—Can we attach any definite meaning to the conception of a mode of existence that is super-personal? The term "Superman" has been a good deal used in recent times; and certainly it is possible to think of beings to whom such a term is not wholly inapplicable. Some men seem to be so deficient in any fixed and distinctive character that they are hardly to be described as persons at all. Others have characters so richly developed that we tend to think of them rather as types of humanity at its highest than as particular individuals. Even such a man as Napoleon, as we have already noted, spoke of himself as being "not a person, but a thing"; and others also, observing his career, might very well think of him almost as if he were one of the forces of nature, rather than a particular individuality. In more primitive times, such men were apt to be deified. They are thought of as being, at least in certain respects, free from the limitations by which ordinary humanity is characterized. A better example than Napoleon would be such a man as Shakespeare, whose life as a particular individual seems hardly to count for anything, and who yet in his art seemed to be able to place himself at the point of view of almost every one else, so as to comprehend their individual attitudes in his own. Still more emphatically, the founders of the great religions—the Buddha and the Christ—have tended to be thought of as standing above humanity, and representing rather the perfection at which it aims than a special form of individuality. The latter in particular, according to some accounts of his teaching, seems to have thought of a kind of unity in which many persons should be included. The conception of God as a Trinity points to the possibility of thinking of a being who is not merely one particular person; and some recent conceptions of the Absolute—notably that of Dr. McTaggart—seem to be of a similar character. A less striking instance, but one that is perhaps deserving of consideration, is to be found in the way in which Plato seems to have contrived

[1] See especially the summing up in the Note at the end of Book II, Chapter II.

to mix up the personality of Socrates with his own, so that it is difficult to disentangle them. But the subject that is thus opened up can only be satisfactorily dealt with by considering what is to be understood by a spiritual unity—the conception that is to be discussed in the following chapter.

10. *The Personal Significance of Education.*—In the meantime, it may be well to note at this point that the conception of personality leads to a view of education somewhat different from that to which we previously had occasion to refer. It is the view that is specially connected with what appears to have been the original meaning of the term, as the drawing out or unfolding of the potentialities that are contained or implied in the individual consciousness. This was the view of education that was more particularly emphasized by Socrates and, at a later time, by Rousseau; and it lies at the basis of the doctrines of many recent theorists and educational reformers. Education, from this point of view, is a natural growth, which can only be very partially assisted by external cultivation; and the education of the individual, in this sense, may be regarded as going on throughout the whole of his life. Goethe thought of his self-culture in some such way as this. He was seeking, as he put it, to "raise the pyramid of his being as high as possible." It seems to have been in a similar sense that Keats spoke of the world as "the vale of soul-making."[1] The conception of reincarnation would of course give an enlarged meaning to this conception of education. It would be thought of as being carried on throughout a succession of lives, in each one of which the results of the one that went before would be at least implicit, and would be gradually brought to a fuller fruition. This also is a conception to which we may have occasion to return at a later point.[2]

[1] See Mr. A. C. Bradley's *Oxford Lectures on Poetry*, p. 222, where the following is quoted from one of Keats' letters: "Do you not see how necessary a world of pain and trouble is to school an intelligence and make it a soul? . . . As various as the lives of men are, so various become their souls, and thus does God make individual beings, sparks of his own essence." The chapter on education in Mr. Russell's *Principles of Social Reconstruction* may also be referred to, as laying special emphasis on the development of individuality. See also Bosanquet's *Value and Destiny*, pp. 63–4, and Pringle-Pattison's *Idea of God*, p. 29.

[2] Especially in Book III, Chapters II and IV.

CHAPTER XI

SPIRITUAL UNITY

1. *Universality of the Self.*—We have seen that there is a sense in which the ultimate human point of view may be characterized as super-personal. The significance of this has now to be more definitely considered. It is generally recognized that a nation, and still more humanity as a whole, cannot be regarded as simply a collection of individuals. Nor does it seem to be enough to say that they are individuals with the apprehension of a group superadded. Gregarious animals might be not unfairly described in this way. Their gregarious instincts may be regarded as simply an addition to those instincts that are concerned with the maintenance of their individual lives. But in human life at least the consciousness of a larger unity is too fundamental to be treated in this way. If there is any one in human form whose chief interest is in the preservation and assertion of his own individuality, it would, at any rate, be almost universally felt that such a person is essentially inhuman. The more typically human a man is, the more does his attitude cease to be a purely individual one. This is seen even in those prominent personalities who are often thought of as being specially self-assertive. Napoleon among men of action, Byron among men of letters, Fichte among philosophers, might be taken as representing a certain emphasis on the ego, at a time when the unsettled state of society in Europe made individualism specially prominent. Yet it is very evident that none of these can be fairly regarded as individualistic. They all represent points of view that are readily adopted by many others, and that have a distinctly social significance. Napoleon may have been actuated by personal ambition; but it is certainly to a large extent true, that he was working

for the ideas of the French Revolution, for the liberation of mankind from despotism and the establishment of social justice. As has been already noted, he regarded himself as an instrument for this purpose, rather than as a private individual.[1] The egoism of Fichte became the basis for a new theory of the State. That of Byron became a sentiment of human liberty by which almost the whole educated human race was affected, and which tends to provide a fresh bond of union among them. Something similar would be true of Alexander, of Nietzsche, and of Hobbes, who might perhaps be better representatives of individual self-assertion than those previously referred to. The attitudes of all such conspicuous personalities are typical of human aims in general, and are dependent on the larger movements of history. The Hero, in Carlyle's language, is never one who fights for his own hand, but one who has a better grasp than others of some principles that have a general significance for human life. His strength lies in his universality ; what is specially individual in him is the source of his weakness. And, if this is true even of those whose individual personality stands out conspicuously in a somewhat self-assertive way, it is still more emphatically true of others who are not less notable as individuals, but in whom the aspect of self-assertion is more definitely absent. If Byron represents something that is not simply individual, what is to be said of Homer or Shakespeare —men so little self-assertive as individuals, that their very existence has been questioned? If Fichte was not simply an individual, what shall we say of Plato, who veiled his own personality behind that of others, or of Pythagoras, whose specific doctrines were merged in those of his school or brotherhood? If Napoleon was more than a person, what of the Buddha or the Christ? It would appear, from such instances, that the more powerful a man's individuality is, the less is he simply a person ; the more does he become a type of humanity in general. And the reason of this seems clear enough. It is of the very essence of the human consciousness to be universal in its outlook. Our ordinary consciousness is, indeed, largely concerned with particular things and events, cut off to a considerable extent from the whole to which

[1] How far he was sincere in this, may no doubt be open to question.

they belong. But the reflective mind cannot rest in such an attitude. The development of our consciousness carries us away, by degrees, from such particular objects to the apprehension of the general laws by which they are related to one another, and to the universals of which they are instances. The point of view that is thus reached is not one that is peculiar to any individual, but common to all who are capable of attaining it. The highest good for human beings seems to be necessarily thought of, as Spinoza urged, as one that is common to all and that all may equally enjoy. And it would seem that every human being is essentially aiming at this highest good, and cannot conceive himself as fully reaching it without the participation of all others. This is pretty fully recognized in the higher forms of religion. The Christ, in particular, proclaims a universal kingdom. In poetry also, the almost universal sympathy of Shakespeare is generally felt to be his chief title to supremacy. It is in this sense that we may accept the dictum of Comte, that the individual is an abstraction ; and that humanity as a whole is the only complete reality. From this point of view, the social unity acquires a deeper significance than that which belongs to it when it is merely regarded as the unity of a herd, a group, or a nation.[1]

2. *Love.*—Love is perhaps the best term that we can use to express the kind of unity that binds persons together in a larger whole—love or the sense of brotherhood. It is true that we may speak of love as existing below the human

[1] In connection with this, the statement of Professor Pringle-Pattison (*Hegelianism and Personality*, p. 216) may be noticed. "Each self," he says, "is a unique existence, which is perfectly *impervious*, if I may so speak, to other selves—impervious in a fashion of which the impenetrability of matter is a faint analogue. The self, accordingly, resists invasion ; in its character of self it refuses to admit another self within itself." The self here spoken of would seem to be the self of an egoist or purely private individual. No doubt it is true that "the heart knoweth its own bitterness" ; and there is such a thing as "impenetrable atomic subjectivity" (a phrase of Hegel's) ; but, on the whole, the things that we cannot share with others are things that we are somewhat ashamed to share with ourselves. For some further discussion of this subject, reference may be made to the book on *Personality* by Dr. F. B. Jevons (especially pp. 135–57). Professor Pringle-Pattison's more recent work on *The Idea of God* may also be referred to, in which some of his earlier statements have been greatly toned down. See especially Lectures XIV, XV and XX, and more particularly the Note on p. 389.

level ; and even in human life the term is sometimes applied to modes of relation that are not of the kind here in view. Various forms of affection - notably maternal affection - seem to be almost universal in the animal world. But a relation between persons, as persons, has a somewhat different character. Aristotle distinguished three main types of friendship or love ; and it is possible that an even larger number might properly be recognized. But the most definitely human form of it is that in which one person apprehends another as an absolute end, an ultimate standard of valuations, in the same sense in which he apprehends himself as such. This seems to be what is implied in loving one's neighbour as oneself. Human beings seldom quite adopt this attitude towards their neighbours in general ; but it is at least more often approximated to in the relations between two or a small number of individuals. It has sometimes been said that such a relationship may be described as "selfishness for two," or for some larger number ; and it is no doubt occasionally true that the attachment between the members of a family or other social groups has this somewhat negative and exclusive aspect. But, in general, it is probably truer to say that one who has learned to appreciate another as an end similar to himself, an equally authoritative source of valuations, is well on the way to recognize all others as having the right to be so regarded. It seems to be the chief glory of Christianity to have brought out this aspect of human life with a power never previously known. It has not always been very prominent among the upholders of that religion, who, as Swift said, have sometimes only had enough religion to make them hate, not enough to make them love one another ; but the festival of Christmas has at least been adopted as a lasting symbol of this attitude ; and it lies at the basis of the modern conception of Democracy, which is thus distinguished from the type of Democracy that was criticized by Plato. Plato thought of Democracy as based on the ideas of Liberty and Equality ; whereas most of its modern supporters would rest it rather on that of Fraternity. Now, it may be urged that what is chiefly emphasized in such conceptions is the intrinsic value of persons ; but the recognition of a brotherhood of persons

seems to point to a kind of unity that may fairly be called super-personal. The conceptions of Liberty and Equality may be said to represent the purely individual aspects of human life: that of Fraternity leads us to recognize that individuals have an intrinsic unity as persons. "Individuality," as Dr. Bosanquet has very finely expressed it,[1] "the principle of reality and the consistent whole, takes us on beyond personality in the strict sense, beyond the consciousness of self which is mediated by an opposing not-self, into the region where we go out of the self and into it by the same movement, in the quasi-religion of social unity, in knowledge, art, and in religion proper. And in all these experiences, as the repellent self-consciousness diminishes, and the sense of unity with the world and with man becomes pre-eminent—in all these individuality is strengthened, and the self, though less in opposition to a not-self, is more itself, and is more at home. And when freedom and spontaneity reach their climax in religion the self no longer insists on its exclusive claim, and the whole being goes out together into the service which is perfect freedom." Of course, it seems clear that the super-personal in this sense includes the personal. This also seems to be represented in Christianity by the conception of the Divine as including three Persons.[2] With this may be compared Dr. McTaggart's conception of the Absolute, as consisting of a number of immortal persons, bound together by love.[3]

3. *Human Ideals.*—Human beings may try to satisfy themselves for a time with a good that is purely individual, or limited to a few with whom they are specially connected; but, as rational beings, they cannot in the end be content with this. Reason constantly holds up before us the conception of universality; and this becomes for us a conscience, forbidding us to be satisfied with anything that is not common to humanity, or, as Walt Whitman put it, with anything for which others do not have the equivalent. The conception of Fraternity is inseparable from rationality; and the con-

[1] *Principle of Individuality and Value*, pp. 270–1.
[2] For an interpretation of this, see the Note at the end of Book III.
[3] *Studies in Hegelian Cosmology*, chapter ix.

ception of Fraternity leads to the demand that all should have the utmost Liberty that is attainable, and that Equality of conditions and opportunities should be, as far as possible, secured. Reason leads us to see, further, that the goods that it is specially important to secure for all mankind are those that have intrinsic value—Truth, Beauty, and Goodness. These aims are personal, in the sense that they have to be consciously realized; but they are super-personal, in the sense that they are thought of as belonging to a community of persons, rather than to separate individuals. Truth, for instance, in any complete sense of the term, can hardly be attained by any one human being. The torch is passed from hand to hand, and by degrees there is an illumination in which all can participate. Things of beauty are "a joy for ever," and are gradually made accessible to a larger and larger number. Goodness is cultivated by suitable education, and the opportunities for its exercise are made more and more abundant by improvements in social conditions. The ideals that are thus set before us are ideals for man, rather than for men; but to say that they are for man is to say that they are continuously to be made accessible to all men. This conception of a developing humanity, if taken by itself, represents in the main the point of view of Positivism. Mankind is, from this point of view, thought of as a single whole, pressing forward to the realization of his supreme good, through the gradual control of surrounding conditions, which he conquers by understanding them. Νοῦς learns by degrees to steer the course of the objects with which it has to deal; so that man becomes, as it were, the god of the world in which he lives.

Glory to Man in the highest! for Man is the master of things.

Unhappily, however, reflection seems to show that man is not altogether the master of things; nor is it easy to see any definite prospect of his becoming so. At any rate, the thought of an ultimate good as something, in Aristotle's phrase, that can be done and achieved by man, seems to postulate a general conception of the universe that we inhabit as presenting conditions that are more or less amenable to the control of human choice. This will have to be more

fully considered in the next chapter; but in the meantime, some points bearing upon it may be noticed here.

4. *The Conception of the Superhuman.*—The thought of a spiritual unity seems to carry us inevitably beyond what is purely human. The struggle to achieve the human good would be a futile one if it were perpetually thwarted by the conditions of the universe in which human life is carried on; and it would not be a very hopeful one if it were not, in some degree, helped by these conditions. The possibility of attaining truth, for instance, seems to presuppose that the universe that we inhabit is one that is essentially intelligible. If it is a chaos, the end that we seek may be expected for ever to elude us. Any truth that we could hope to reach would, in that case, be only truth in the pragmatic sense—i.e. beliefs that serve our practical purposes for the time. The causal order, for instance, would have to be interpreted, as it was by Hume, not as a definitely objective condition of our universe, but as essentially signifying merely a habit that we form, as the brutes do, of expecting a certain regularity, which, within certain limits, turns out to be justified by results. Similarly, the effort after the realization of what is beautiful would be a futile one if the universe that we inhabit did not lend itself to the production and preservation of beautiful objects. Beauty would, in that case, have to be regarded as little more than a subjective aspiration. Goodness, being more purely a human attitude, might be thought to be less dependent on the structure of our universe. But if goodness is rightly regarded as consisting essentially in the love or choice of what is true and beautiful, its value would seem to be dependent on the reality of these. If there is any truth in Browning's summary—

> O world as God has made it! All is beauty;
> And knowing this is love; and love is duty,

it would seem that, if we could not "know this," duty would be foolishness. Thus it appears, on the whole, that to recognize a reality in the spiritual unity of mankind is also to recognize that the universe in which we live is essentially a spiritual whole; or at least a whole that is somehow in

harmony with our spiritual demands. We can hardly have a real love of humanity without some appreciation of the conditions in which human life is carried on. If we do not love nature, as well as man, a large part of human life must seem unlovable, and the remainder must appear to be somewhat futile. Hence the conception of a spiritual unity of mankind leads us almost inevitably to a religious conception of the universe, and not merely to a religion of humanity. The consideration of this, however, must be deferred to the following chapters. For the present it must suffice to notice that the human attitude is one of pursuit and gradual progress, rather than of any complete attainment of the good that we have in view. A few remarks on the significance of human progress may here be in place. But first we must refer briefly to the conception of a General Will.

5. *The General Will.*—Rousseau expressed the solidarity of a community by the conception of a general will, and his statements on this subject are in a high degree enlightening.[1] This is certainly a very convenient way of summing up certain important aspects of human life; but it is apt to be somewhat misleading. Strictly speaking, will or choice would seem to be an attitude that belongs to individuals, though their choice may be directed to objects that are of social importance, rather than of individual importance, and may be influenced by considerations that, simply as individuals, they would hardly feel. What is meant by a general will is essentially similar to what has been previously referred to as general knowledge.[2] Just as an individual does not always know the grounds for that choice which is expressed in his beliefs, so he does not always know the grounds for the choice that is expressed in overt action. His more purely individual acts depend on the values that he attaches to the objects that he chooses; but in very many cases he accepts his valuations from the community to which he belongs. Even in economic transactions we do not, in general, give for the

[1] Reference should be made to Professor C. E. Vaughan's very valuable Introduction to his edition of Rousseau's political writings, and to the Appendix in which he contrasts the views of Rousseau with those of Fichte.

[2] Book I, Chapter IX, § 3.

articles that we purchase what they are worth to us, but rather the price that is determined by the state of the market. Something similar is true in actions of a different kind. A statesman is moved by considerations which, as a private individual, might not greatly appeal to him. A soldier is ready to give his life for causes which, as an individual, he may scarcely value at all. An architect may build better than he knows, through the influence of æsthetic demands that have grown up within his community, though the grounds for them may not be clearly apprehended by any one individual. A writer, even when his utterances have an interest for all time, expresses to a large extent the ideas of his age. There is a system of valuations built up in any community, by influences that it would be difficult to analyse with any completeness; and the choice of individuals, especially when they are acting on behalf of the community, is often determined by these in ways of which they are hardly conscious. The presence of such a system is recognized in such phrases as "the soul of a people," "the conscience of the civilized world," and other similar expressions. Indeed, even our more purely individual valuations grow up by processes that could not easily be explained. Cupid is not the only blind god who moves men to ends that are rather felt than known.

But it is not altogether satisfactory to treat such facts as implying a general will; since it is only as focussed in some individual consciousness that they give rise to choice. Rousseau, I think, did not really intend to lay any special emphasis on *volonté*. He was himself much more a man of feeling than of will; and I think he meant mainly to emphasize a community of sentiment, rather than of volition. This applies also to Schiller, who did much to emphasize the spirit of national unity. It was Fichte and some of his followers, rather than Rousseau, who laid the emphasis on will, and thus treated the community as if it were an individual entity. When this is done, it is no longer the community that is regarded as the embodiment of the spiritual unity of mankind, but rather the State as expressing in action the community's valuations. But, as Green has urged,[1] we

[1] *Prolegomena to Ethics*, Book III, chapter ii, § 184.

cannot "suppose a national spirit and will to exist except as the spirit and will of individuals, affected in a certain way by intercourse with each other and by the history of the nation." The action of the State is either that of a monarch or that of a number of persons who decide things by their votes. Of course, the monarch has his advisers; and, if the governing body is a number of persons, they discuss their policy with one another, and have an eye to the opinions and wishes of others as well as themselves. In this sense, it is no doubt true that their wills have a certain generality; but this is true of the will of any individual—unless he is extremely "wilful"—even in his most private affairs. The danger of applying the conception specially to the State is that it tends to represent it as a sort of divinity; whether this takes the form of a recognition of the divine right of a monarch or of that of the *vox populi*. Such a will would seem to have individuality without responsibility; and this way of thinking of it leads naturally to its enthronement as an unaccountable power, after the manner of Treitschke. Against this it is important to urge that the State does indeed embody a certain power. It is a powerful mechanism designed to maintain justice and human welfare. In so far as its legislative and executive actions are based upon the system of valuations that has been built up within the life of the community, it may be said to express certain general purposes; but only in the sense in which we might make a similar predication of a cathedral or a railway train, or even of fashions in dress. The State, of course, has much larger functions than any of these things, and much more deliberation is generally devoted to its work. It is the greatest of all the servants of the community; but it may very well prove a bad master. It makes laws and roads for us—the two great legacies of the Roman Empire to the modern world—and it is capable of many other forms of organization. But free peoples are constantly mending their laws and their roads, and even the general organization of the State itself. As Walt Whitman said, they "think lightly of the laws"—not in the sense that they do not obey them, but that they recognize their provisional character, and are always ready to adjust them to

new conditions.[1] They recognize also that they are citizens of the universe, and not merely of the particular State to which they happen to belong. With these cautions, we may still accept the conception of a general will as a useful one.[2]

6. *The Interpretation of Progress.*—In order to attach any definite meaning to progress, it is necessary to have a clear conception of the end to which it is directed. This we find in the view of human life as aiming at the ideals of Truth, Beauty, and Goodness. It is evident that what is commonly called progress is not always, in any definite way, an advance towards these ultimate aims. Rousseau questioned whether the advancement of the arts and sciences in his time involved any real improvement in the essentials of human life ; and a similar doubt has often been raised with regard to the highly materialized civilization of our own age. It may be asked whether we have made any real advance on the type of life that was to be found in ancient Athens or in the best times of the Catholic organization of Europe. Some would even point back to much more primitive conditions of human life. Hence there has arisen some doubt whether there is any real progress in the life of humanity at all. One thing at least must be allowed. It could not easily be shown that there is any inevitable tendency to

[1] The statement of Adamson is, I think, worth quoting here. "A State as it exists at any moment may be a noble product of human effort, potent for good in innumerable ways, but never is it to be regarded as final, as an end in itself, as other than a way in which the general spirit of humanity has expressed itself under particular conditions. And the changes of a State or system of States seem to me to have significance only when regarded in relation to the movements of human thinking and feeling from which they spring and to which in turn they communicate impulse and direction" (*Development of Modern Philosophy*, vol. ii, pp. 117–18).

[2] The best recent treatment of the general will is that contained in Dr. Bosanquet's *Philosophical Theory of the State.* There is hardly anything to be objected to in his manner of dealing with it ; but I think it is important to distinguish, more definitely than he has done, between the State as such and other modes of spiritual unity. Some recent books are worth referring to in this connection—especially perhaps the *Lectures on Nationality* by Dr. Holland Rose. "The nation," he says (p. 139), "needs the State to endow it with hands and feet. But the nation remains the directing agency vitalizing and directing the body politic. But behind the nation again there is the growing spirit of humanity, expressing itself in literature, religion, art, and many other ways." See also Mr. Russell's *Principles of Social Reconstruction*, chapter ii..

advancement in human life. Progress is, in general, only brought about by the conscious choice of the good by individuals, and by the concentration of effort on its attainment. It may, however, be urged that the effort after such a good is never wholly absent from the human consciousness. It is chiefly obscured by the fact that it has often to be pursued indirectly; and that the end may be concealed by the means that have to be adopted in the search for it. It is no doubt true, particularly in our own time, that the instruments used for the ordering of human life have some tendency to overwhelm the life itself. "Things are in the saddle, and ride mankind." This opposition between the machinery of life and life itself has been much emphasized by M. Bergson.[1] It is probably right to add, however, that most of the subsidiary ends to which human beings devote themselves can be used as means for the attainment of the higher ends. The pursuit of individual pleasure is probably the most serious obstacle; but the fact that individuals are free to pursue pleasure implies that they have a certain freedom to pursue other ends if they choose. The advance of the special sciences may have somewhat blunted the religious sense; but the co-ordination of the sciences must at least expand our outlook on the universe. The development of the mechanical arts may have destroyed some forms of beauty; but, when we learn to use the mechanical arts for their proper purposes, we may be freer to devote ourselves to objects of beauty once more. At any rate, it is in general true that little of what was valuable in the past is destroyed beyond the possibility of recall. We still learn from the Greeks and from many other older civilizations; and there is nothing to prevent us from appropriating everything that was best in them. The highest ends are not dependent, in any direct way, on external conditions. By taking thought, we can make steady progress towards them.

The chief doubts with regard to the reality of progress in recent times are due to that theory of evolution, of which

[1] One of his most striking illustrations is in his recent little book on *The Meaning of the War*, which is traced to the dominance of State-machinery in Germany. How far this particular application is just, we are probably not at present in a position to judge quite fairly.

Weismann is the most prominent representative, according to which acquired characteristics are not inherited. It is doubtful whether that doctrine has been fully established; but at least it seems to have been so far proved as to render impossible the kind of optimism that was based by Herbert Spencer upon the Lamarckian theory; and has led to the kind of despair of human progress that has been eloquently set forth by Mr. Bernard Shaw in *Man and Superman*. The only refuge, it would seem, is to be found in the somewhat desperate attempt at artificial selection (desperate at least in the present state of our knowledge) [1] with a view to the breeding of the Superman. But this view rests on a too individualistic conception of human progress. The modern individual may not in himself be in any way superior to his fathers, and yet may have a spiritual inheritance that raises him above them. Talbot was not the only man whose individuality was but the shadow of himself. A modern schoolboy has access to knowledge that was unattainable by Aristotle; and it is not only to knowledge that such access is provided. There is also access to new possibilities of feeling and action, to finer valuations and more adequate means of expression, and these are by no means confined to supermen. Benjamin Kidd's *Social Evolution*, crude as in many respects it was, had at least the merit of calling attention to this more social conception of progress, in opposition to the doctrine of Spencer. The achievements of great men would indeed be somewhat futile if the fruits of their labours did not, in some degree, live on in the common consciousness of mankind. Even Carlyle, who was no great believer in progress, recognized this much.[2]

[1] I do not mean to deny that much might be learned and accomplished by a careful study of eugenics. But the difficulties in the way of its immediate application that were urged by Huxley in the Prolegomena to his *Evolution and Ethics* (*Collected Essays*, vol. ix, pp. 22–3) appear still to retain their force against such proposals as are here referred to. Mr. Bradley's "ethical surgery" appears to me to be open to similar objections. See *International Journal of Ethics*, vol. iv. Mr. Russell's suggestions (*Principles of Social Reconstruction*, chapter vi) may be more practicable, but would need to be very carefully thought out.

[2] The conception of progress cannot be adequately considered without reference to the sense in which the reality of the time-process is to be recognized. For further remarks bearing upon it in this connection, see Book III, Chapter IV, §§ 7, 8 and 9.

7. *The Source of Moral Obligation.*—The conception of spiritual unity that has now been indicated furnishes us with the ultimate source of moral obligation. This has to be distinguished from the kind of obligation that is supplied by custom or law. The most primitive conception of moral obligation is no doubt based on the simple consciousness of the group as a source of customary observances or definite laws. It is this type of morality that is not unfairly described by Nietzsche's phrase "slave morality." When there is a definite distinction in a group between the rulers and the ruled, the latter are simply subject to the "general will" of the former. The proper antithesis to "slave morality," however, would seem to be the morality of freemen, not the morality of masters. The morality of masters, as Nietzsche conceived it, is based on the "Will to Power," whereas the morality of freemen is based on the Will to Truth, Beauty, and Goodness. Such a morality, as Kant urged, is a morality both of master and servant: it is a morality of beings who recognize themselves as belonging to a kingdom of ends, in which they are at once lawgivers and subjects of the law. Its authority is the authority of reason. As rational beings, we recognize that there are conditions under which Truth, Beauty, and Goodness can be most adequately realized. These conditions are not always easy to discover; but, so far as they can be discovered, they carry with them their own authority for all rational beings. In Butler's language, they have genuine *authority*, as contrasted with the external *force* of the group or master.

8. *The Significance of the Individual Life.*—The individual who recognizes himself as a member of such a spiritual unity has to be thought of in a somewhat different way from the individual who is simply conscious of himself as a member of a group or as a self-assertive personality. Plato's Republic, inspiring as in many respects it is, has the fatal defect that the individual citizens are regarded in it as little more than means to the life of the whole. Each citizen is to have a special function in the life of the State, and is to be trained simply for the fulfilment of that function. When he is, for any considerable time, incapacitated for this, he is to be

ruthlessly cast aside. He is a wheel in a great mechanism, and has no value, apart from that. This view is adopted by Plato in opposition to what he conceives as the democratic view, the view of Liberty and Equality—i.e. the view of individual self-assertion, limited only by the self-assertion of others. Against this assertion of individual rights, Plato urges that the only real right of the individual is his right to the position for which he is fitted in the life of the whole. What is *due* to him is simply his *duty*. He is entitled to secure the place in which he can exercise his special function to the best advantage, and to the education and instruments that are required for the proper discharge of that function. Similar views have been taken by more recent opponents of democracy, such as Carlyle and Ruskin; and perhaps the organization of modern Germany may be taken as the nearest approximation to the subordination of the individual to the life of the whole. Now, it may be conceded that the only right of the individual is to be allowed to perform his duty; but what Plato and others seem not to have sufficiently recognized is, that, in order to do his duty properly, he must be free to choose it and able to see that it is his duty. He must learn to realize, at least in some degree, that the life of the whole to which he belongs is his own life. In the case of the rulers Plato recognizes this; but not for the citizens in general.[1] No doubt, even in our modern democracies it is difficult to realize such an ideal, even in an approximate way. Perhaps it cannot be adequately realized without considerable modification in many of our institutions and modes of government. But it is at least more and more recognized that it is only by some tolerable realization of it that a properly human life can be secured.

9. *Corporate Immortality*.—We may now inquire, how this view of spiritual unity affects the demand for personal immortality. That it must modify it to some extent, seems clear. The individual who recognizes himself as a member of a spiritual unity could at least hardly seek for any con-

[1] The doctrine of immortality set forth in the last Book of Plato's *Republic* may have been intended to serve as a corrective to the conception of the life of the individual as being completely merged in that of the State.

tinuance of his own life in separation from the whole to which he belongs. Nor would he seek, it would appear, for the continuance of those limitations that are specially characteristic of his existence at particular moments. It may be doubted, for instance, whether he would desire the resurrection of his body; and yet, as we have noted, it would seem that without this many of the characteristics that we commonly associate with the personality of the individual would disappear. The individual who thinks of himself as a member of a spiritual whole is aiming at the realization of an ideal; and it is for that ideal that he desires persistence, rather than for what belongs more peculiarly to himself. Indeed, even the individual who specially values his own personal existence, would hardly wish for the persistence of every particular aspect of it. The child does not, in general, desire to persist as a child, but rather to become a man; and yet this involves a considerable change in his personality. Similarly, the individual who has realized, in any considerable degree, the nature of the ultimate aim for which he strives, does not desire the persistence of his limited nature, but rather the attainment of a more perfect mode of being. He thinks of his present life, no doubt, as the child also does, as having a certain continuity with that more perfect life at which he aims; but the identity may be one that covers a great deal of difference. He thinks of himself as playing a certain part in the development of the higher mode of being at which he aims. He thinks of that higher mode of being as something more comprehensive, in which his present life would be, in some sense, contained. He thinks also of the lives of other persons with whom he co-operates as aiming at a similar realization. Can it properly be said that, in thus thinking of himself and others, he desires personal immortality either for himself or for others? There are some aspects of this question that we must still postpone for further consideration. In the meantime, it may be urged that the desire for immortality is, at any rate, not purely a desire for individual persistence. A parent, conscious of the limitations of his own life, is often chiefly anxious to see the things at which he more or less unsuccessfully aimed, carried out more adequately by his children. A poet

or artist may value chiefly the immortality of his works, as embodying the finest aspirations of his individual life. Socrates is made immortal in the dialogues of Plato; and one may wonder whether either of the two would have wished for any better immortality.[1] On the other hand, it may be urged that such immortality as this does not affect the lives of the great majority of mankind. Many have no children, or only children who disappoint their fondest hopes. They are unable also to embody their best thoughts and aspirations in enduring work; nor have they a Plato at hand who will do it for them. Some, again, may feel, like Goethe, that, though they have accomplished something, there is still much that they are impelled to attempt. With reference to this last point, it might of course be asked whether one is fairly entitled to demand that all that he might have done should actually be achieved by himself. In any case, it would seem that, even for a Goethe, there would come a point at which he would have to recognize that he had developed everything that properly belonged to his special individuality. One would suppose that he might then be ready to say "Lord, now lettest Thou Thy servant depart in peace." Hence it may be doubted at least whether more than a limited kind of personal immortality is really demanded —immortality up to the point at which the vein is worked out. Reflection on this has led a good many in the Western world to a conception of immortality closely akin to that which has long been current in the East—that of successive incarnations terminating at last in the state that is described as Nirvana. On this conception some remarks may have to be made at a later point.[2]

10. *The Spiritual Significance of Education.*—We have already noted some different ways in which education may be conceived. It may be regarded as the process of initiation into the spirit of the group, or as the process by which

[1] George Eliot's lines about joining "the choir invisible" are too familiar to call for special reference. Perhaps the best account of the conception of corporate immortality is that given by Samuel Butler (the author of *Erewhon*) in his Essay "How to make the Best of Life." See also J. S. Mill's *Three Essays on Religion*, especially pp. 118–22.

[2] See especially the Note at the end of Book III.

an individual personality is unfolded. We have now to notice a conception of culture which may be said to include and harmonize these rival doctrines. If we think of education as the process of initiation into the spiritual heritage of mankind, we have to regard it as dealing both with what comes from within and with what is imbibed from the surrounding atmosphere. Half of our heritage we bring with us, and half of it we have to win. Even what we inherit is a potentiality that we have still to make our own.

> Was du ererbt von deinen Vätern hast,
> Erwirb es, um es zu besitzen.

But part of it lies hidden in our inborn dispositions and tendencies to valuation, part of it in the institutions and customs by which we are surrounded, part of it—perhaps the richest part—in the treasures of human wisdom which have only been to a small extent embodied in any definite forms, but which may gradually be made accessible to us. Glimpses of them are caught chiefly from the words of the poets and the sages—words that do not belong peculiarly to any time or place, but express rather what is essential to the spirit of humanity in all times and places. What is described as moral and religious education is specially concerned with this. Plato gives us glimpses of it throughout his *Republic*; and the account of education in Goethe's *Wilhelm Meister* is also concerned with it. It almost requires a genius like that of Plato or Goethe to give an account of it. In ordinary discourse it is apt to be profaned. But fine teachers contrive to give it, often in a manner that is almost unconscious; and any education that does not in some way contain it is indeed "secular" and inhuman.[1]

11. *The Foundations of Ethics and Social Philosophy.*—The sciences of Ethics and Social Philosophy are the special subjects that are concerned with the spiritual unity of mankind. Ethics deals with it as the foundation of moral obligation and Social Philosophy as the foundation of the

[1] In recent times, the writings of Mr. E. G. A. Holmes and the work of the Civic and Moral Education League are perhaps the most notable contributions from different points of view, to this aspect of the subject.

ideal ordering of human communities. It is convenient, as we have already noted, to distinguish the latter from what is now commonly known as Sociology. Sociology is in the main concerned with the actual structure and growth of human societies. The ultimate ends that are involved in such communities can hardly be entirely ignored in such a study, but they tend to be relegated to a subordinate place. Even Aristotle separated Ethics from Politics in a way that Plato did not attempt; and it can hardly be doubted that the separation tended to greater clearness in the treatment of detailed problems. There is a similar advantage in dividing what Aristotle understood by Politics into the part that is mainly historical and descriptive and the part that is concerned rather with ideal aims; though it is no doubt true that all such separations are to some extent artificial. The living soul and the living body can hardly be divided, either in an individual or in a society; but, in both cases, the study of the structure and growth of the organic unity can be distinguished from the study of the spiritual power that works through it and directs it towards ideal ends.[1]

[1] The recent book on *Community* by Professor MacIver has thrown a good deal of fresh light on this subject, especially on the place of institutions in the development of social life. On the distinction between Social Philosophy and Sociology, reference should be made to *A Philosophy of Social Progress*, by Professor **E. J. Urwick.**

BOOK III

THE UNIVERSE AS A WHOLE—FROM CHAOS TO COSMOS

CHAPTER I

THE GENERAL STRUCTURE OF OUR UNIVERSE

1. *Transition to Cosmic Unity.*—When we pass from the conception of a spiritual unity of mankind to the thought of the Universe as a connected whole, we are confronted by problems of very great difficulty, with which we can only hope to deal in a somewhat tentative fashion. There have, indeed, been many brave attempts to deal with it; and it cannot be said that they have been wholly fruitless, even if none of them has been completely successful. Some of the early attempts that were made in India are highly instructive; but, in general, they appear to be suggestive rather than logically coherent, resting on intuitions to which it is difficult to give exact form or to provide a basis that can be established by cogent argument. The early Greek speculations appear to be partly traceable to Oriental sources. Most of them have a certain clearness, and they helped to give definiteness to mathematical and physical conceptions, and to lay the foundations of logical method; but they did not furnish any intelligible theory of the Cosmos. Plato, by his doctrine of a system of universal forms, to be interpreted by means of the conception of the Good, sought to represent the whole of reality as being in its essence spiritual; but he failed to give any intelligible interpretation of the material world and of the particular living beings that we know. Aristotle's theory of a hierarchy of forms, imposed upon a primitive material, gives us a more systematic synopsis of the universe, and supplies an excellent basis for the study of the particular sciences, but fails to provide any ultimate explanation. Plotinus was profoundly suggestive, but seems to have left his theory somewhat vague.

Aquinas discussed special problems with great acumen, but does not appear to have provided a really fresh construction. Spinoza's system has a great show of logical method and thorough coherence; but it has the fatal defect of containing a dualism that is at once affirmed and denied.[1] That of Leibniz, though showing great lucidity on particular points, appears to be incoherent as a whole. That of Hegel, though weak in its interpretation of nature, has perhaps a better claim than any other to be regarded as a logically coherent whole; but it is not easy either to justify it in detail or to understand its final outcome. Among more recent attempts, that of Mr. Bradley is certainly one of the most remarkable; but it seems to be stronger on the critical than on the constructive side. On the whole, we cannot appeal to any metaphysical system as claiming absolute validity; and we must be content to struggle along as best we may.

It is evident that it is very difficult to form a coherent view of the universe as a whole; and this is perhaps not surprising. It may be well to begin by trying to see clearly what we understand by the universe, and what we mean by asking whether it can be regarded as a cosmos. The full implications of the conception of a cosmos will have to be considered later. In the meantime, it seems clear that its primary implication is that of a system that can be regarded as being, in Spinoza's phrase, *causa sui*. The modes of unity that have been considered up to this point cannot be so described. Even spiritual unity is not self-explanatory, so long as it has to be regarded as developing in relation to a more or less alien world. What we have now to consider is whether the universe as a whole can be conceived as a self-explanatory system. But what do we mean by the universe as a whole? Clearly we do not mean the totality of things as at present known as existing; but we do mean something that at least includes that totality of things. Hence it may be well to begin by asking how that totality of things presents itself to us when we view it reflectively. This we

[1] A similar remark might be made on the point of view to which the term "Monism" is at present most commonly applied—the point of view of which Haeckel is the most prominent representative. It seems, in reality, to contain an unsolved dualism. See the article "Monism," by Professor Eucken, in the *Encyclopædia of Religion and Ethics*.

may characterize as the human universe—i.e. it is the universe as at present apprehended by the human consciousness. How far that universe can properly be regarded as the whole universe, to which the conception of a cosmos might be applied, is another question. But, at any rate, it seems clear that the whole universe must include the universe as human beings apprehend it.

2. *The Human Universe.*—The universe as known to human beings is evidently a somewhat variable system, though some of its general features may be taken as constant. The universe as known to Empedocles and Anaxagoras was a very different universe from that which was known to Newton and Kant ; and, even since the time of Kant, there have been considerable changes in the way in which it is conceived by instructed and reflective minds, quite apart from any attempts at ultimate philosophical interpretation. Yet even the universe as known to Empedocles and Anaxagoras was very different from that represented in the Homeric poems ; and that again was very different from the universe as it is apprehended by a savage or by a child. To an uninstructed person the universe is little more than the totality of things that can be readily observed within the particular portion of the earth's surface on which his life is passed. For Homer it was a rather more extended surface, surrounded by the ocean stream, and completed by the conjecture of unearthly regions and supernatural powers. To Empedocles and Anaxagoras it presented itself as a more coherent system, with the known portion of the earth's surface as centre, and with a conception of the whole as a definite order, arranged in accordance with certain intelligible principles. For Newton and Kant, on the other hand, the earth and all that is upon it were but a minute fraction of an immense system, bound together by certain known laws, but as a whole not easily intelligible. Instructed people at the present time think of the universe as an even vaster and more complex system than that which was conceived by Newton and Kant ; and they have a much more complete knowledge of the special laws that are involved in the changes both of the material system that is apprehended and of the conscious processes

of individual minds ; but the explanation of the whole can hardly be said to have become much easier. Nor have we any definite reason to suppose that we have come to the end of the process by which the extent and complexity of the universe, as apprehended by human thought, have been enlarged.

Now, it is pretty obvious to every one that the universe, as apprehended by Homer or by Empedocles and Anaxagoras, could not have been conceived as a cosmos ; because their knowledge of the structure of the whole was too inadequate to furnish a basis for any ultimate interpretation of it. That this is true even of the universe as apprehended by Newton and Kant, would probably be generally admitted ; and we may fairly suspect that it is true even of the universe as we now know it. Hence, when we ask whether the universe can be regarded as a cosmos, we must not be supposed to mean the universe as known by human beings, either now or at any other time. This being the case, it may be thought to be a somewhat vain inquiry. But this would not be an altogether fair inference. We may at least be able to determine the exact meaning of the inquiry ; and we may be able to consider whether there are any features in the universe as we know it which make it either necessary or probable that it should be regarded either as in itself a cosmos or as a part of a more comprehensive cosmic unity.

The universe, as apprehended by human beings at any time, or its general features as apprehended at all times, may be referred to as the phenomenal world, or the world of appearance. This does not necessarily mean that it is in any way unreal ; but only that we recognize its incompleteness, and that, if we could apprehend it in a more complete way, our conception of its general structure might be considerably altered. In order to bring this out, it may be well to call attention to some of the more general features of the universe as we at present know it. Some of these seem to belong to it in all the phases of human experience : others may belong only to the present phase of our apprehension of the universe. When we have noticed these, we shall be in a better position to consider (1) whether the universe as we know it can be regarded as a cosmos ; (2) if not, what

changes in our apprehension of it would be necessary in order that the conception of a cosmos might be applied to it; (3) whether there are any features in the universe as we know it that would justify us in affirming or denying that it is a cosmos or a part of a cosmos.

3. *Universals, Orders, and Particular Things.*—It will be convenient to begin this inquiry by returning to some considerations that were put forward at an earlier stage. We may at least say of the human universe, or the phenomenal world, that it consists of a number of particular things that either appear in the conscious experience of particular individuals, or can be inferred as objects that would so appear under assignable conditions. Now, it has already been urged that particular things, in general, may be regarded as the meeting-points of universals in orders. This fire, for instance, seems to contain brightness, redness, warmth, extension, of certain degrees and amounts, all apprehended by me at this moment of time, and recognized as having, in their combination, a certain appreciable value. This unity of different universals is, moreover, apprehended by me as not simply momentary, but as having a certain persistence; and I regard it as being causally dependent on certain assignable conditions. Similar statements, it would seem, might be made about all the objects in the phenomenal world; but, though the statements would be similar, they would all be in some respects different. If we ask whether there are any definite statements that could be made about them all, a few statements of that kind do appear to present themselves. All particular things that we apprehend would seem to be numerable. What we apprehend at any particular time may be one thing or many things; but, in either case, the conception of number is applicable to it. Again, all such things appear to have an assignable position in space and time. They are all capable of being apprehended and valued. And they are all subject to certain general causal conditions, though the special conditions that are applicable to them may vary. On the other hand, they do not all have colour or temperature; and it is doubtful whether they can all be said to have intensity or extent, or to persist throughout an appreciable

time. Setting aside these variable characteristics, and fixing our attention on those that are always present, we seem to find that some of them are such that we cannot, by any effort of thought, suppose them to be absent; while others might conceivably be eliminated. It is customary to express this difference by saying that some of them are known *a priori* and others *a posteriori*; and, though these expressions are apt to be misleading, it may be convenient to use them for our present purpose. Let us try to see how this distinction can be applied.

4. *A Priori and a Posteriori Aspects of the Phenomenal World.*—That particular things in the phenomenal world are numerable, may be said to be known *a priori*. The instances of the presence of any universal must, it would seem, be some assignable number of instances. It may be that of some conceivable universals—such as perfection—there is no instance. Of others—such as God—there may be only one instance. Of some—such as number itself—there may be an infinite number of instances. But, at any rate, taking the cardinal numbers from zero to infinity, it would seem that the instances of the presence of any universal must be expressible by one of these numbers. Indeed, it would seem that the universals themselves must also be numerable; but with that we need not at present concern ourselves. It is enough for our present purpose to recognize, that the general characteristic of numerability can be assigned *a priori* to all the particular objects that appear in the phenomenal world.

It would not be easy to show that there is any other characteristic that is *a priori* in the same absolute sense. It might, no doubt, be urged that every object that can be assigned to the phenomenal world must be capable of being known and valued. Otherwise, it may be said, it could not be placed in the human universe. But it seems necessary to add the qualification, that they must be capable of being known and valued *under certain conceivable conditions*; and, as these conditions may never occur, the capability may be a mere potentiality. To take a simple instance, there may be grounds for believing that there are certain colours that might be apprehended by beings with more finely developed

senses than ours ; and we may have a right to say that such colours have a place in the phenomenal world ; but, if there are no beings with such senses, these colours may never be known and appreciated. This case is not the same as that of a flower that is "born to blush unseen" ; for such a flower may be pictured and appreciated. It is clear, however, that nothing can be said to belong to the human universe which might not, under certain definite conditions, be known and appreciated by human beings. But to say this is only to explain what we mean by the human universe. The statement may be said, in Kantian language, to be *a priori*, but not synthetic.

What are we say about causation? We have seen that causation appears to mean certain definite orders in which things different in kind are related. Now, it certainly seems, as Kant urged, that, without the recognition of such orders, we could not have any definite human universe at all ; and, in that sense, the recognition of causal connections may be said to be a necessary *a priori* assumption. But it is not *a priori* quite in the sense in which number is so. It is abstractly conceivable that there might be no such orders of connection, or that they might only have a limited application. It is probably true to say that human beings have generally believed that only some things are related in such definite orders ; and that a considerable number of occurrences happen by chance. Even at the present time, there are some philosophers [1] who maintain the doctrine of contingency. We shall have to refer to this more particularly in the next chapter. In the meantime, it may suffice to state that such a doctrine cannot be refuted in any abstract way. The confidence that is generally felt in the universal applicability of some form of causation is due to the success

[1] Notably Professors E. Boutroux (*The Contingency of the Laws of Nature*) and James Ward (*The Realm of Ends*, Lecture IV and pp. 454–5). The former seems to be mainly occupied in contending that all things are not determined in a purely mechanical way. This is only to say that there are different modes of determination that qualify each other. The sense in which this may be maintained has been already considered, especially in Book II, Chapter V. Dr. Ward seeks to distinguish between Contingency and Chance ; but it is not easy to see how such a distinction can be upheld. For some criticisms on the conception of Contingency, reference may be made to Pringle-Pattison's *Idea of God*, pp. 183–8. See also Dr. Bosanquet's *Principle of Individuality and Value*, p. 94.

which has attended the efforts that have been made to discover such orders in various departments of scientific inquiry. Things that were once thought to occur by chance have been found to be connected with one another by definite laws; and we have thus been led to expect that all things might ultimately be found to be so connected. But there are still many things in which no such connections are apparent; and there is no absurdity in supposing that there are no connections to be found. We do not know how it comes that the human universe has the particular structure that we discover in it—how it comes, for instance, that there are a certain number of chemical elements, and that they may be combined with one another in certain ways, and not in others. Even Kant had to recognize that such laws are purely empirical. Hence it seems clear that the modes of causal connection are not known *a priori*. If the universe is to be regarded as a cosmos, there must be definite orders of connection; but we are not yet in a position to consider whether the universe can be so regarded. The human universe at least, the phenomenal world, is not obviously a cosmos. Indeed, it is very difficult to suppose that it could ever be regarded as a cosmos.

What about space and time? It would certainly be difficult to think of particular instances of universals as occurring without some relations of side-by-side-ness and before and after. Even if we try to think of an absolute chaos, we can hardly help thinking of its content as consisting of things, some of which are side by side and others before and after. But it does not appear that we are bound to think of them as occupying a single all-embracing space and a single all-embracing time. Even in the ordinary exercise of human imagination, we do not seem to be limited to such a conception. The adventures of Alice "through the looking-glass" need not be supposed to occur in the same spatial systems as that in which our ordinary life is carried on; nor need we suppose that the adventures of Don Quixote occurred either before or after those that are recorded in the *Arabian Nights* or those that are told by Hans Andersen. Within these special universes we have to think of side-by-side-ness and before and after, but we need not give them

a local habitation within our everyday human universe. The latter, however, has to be thought of as a series of occurrences that can be placed in a continuous time order; and that, at any particular time, have definite positions in a continuous system of space.

Reflection on all this may enable us to see that the essential features of our human universe—i.e. of the universe within which our ordinary waking life is carried on—are that it is a world contained within a single system of space and a single system of time, and in which things are connected together by definite causal orders. It was perhaps the chief contribution of Kant to philosophical advancement, that he was the first to make this clear. Some further consideration of it may be here in place.

5. *The World in Space and Time.*—Space and Time were regarded by Kant as the general forms of human perception. This may be accepted as substantially correct, in the sense that has now been indicated; though his treatment of these forms is open to many criticisms in detail. He appears to have been right also in believing that our apprehension of objects as having definite positions in space and time is dependent on our recognition of causal orders. Without this recognition, we should still have the apprehension of side-by-side-ness and the relation of before and after, as we have even in the working of imagination; but we should not be able to assign to objects a definite order in single systems of Space and Time. On this we need not here enlarge. Those who have followed Kant's arguments will hardly question it; though it is probably true that they are needlessly elaborate, and not always clear. But it may be well to ask what we mean by saying that things or events are in particular positions in space and time. When I say, for instance, that this fire occupies a particular place in this room, and that it is burning at this particular moment, but was not burning an hour ago, how are such statements to be interpreted and justified? The fire, as we have noted, means the occurrence of instances of redness, warmth, etc., in certain definite connections. Is it right to say that this particular colour and temperature are at a particular place at

a particular time? Obviously, there is a sense in which they are not confined to the particular position to which I refer them. The apprehension of the redness, for instance, depends on the use of my eyes; and it may be said to be in my eyes, or in my brain, or in my mind, as well as in the fireplace. What I mean by saying that it is in the fireplace, is that its being in my apprehension is dependent primarily on certain causal conditions that are traceable to the fireplace as their most definite starting-point. A certain spatial extent is connected in a special way with certain qualities of colour and certain degrees of temperature which, under certain assignable conditions, are apprehended by me. The portion of spatial extent which is specially connected with these qualities has certain relations of side-by-side-ness to other portions of space, with which the qualities have no particular connection. The time at which the apprehension takes place is similarly related to other times that are before or after it; and my general knowledge of causal relations leads me to believe that at certain previous or subsequent times the special qualities of colour and temperature that are now apprehended in relation to that portion of space would not be so apprehended. The explanation that is thus given is, in the main, the explanation that would have been given by Berkeley. His error seems to have lain only in attributing to the mind a kind of substantiality different from that which belongs to other meeting-points of universals. It was in this sense that his position was refuted by Hume and Kant. Conscious processes are connected with particular positions in space and time, just as colours and temperatures are; and hence were rightly regarded by Kant as belonging to the phenomenal world. What we have to recognize is that the whole universe of human experience is a system of things and events specially connected with particular positions in a spatial and temporal order, and bound together by regular causal relations. But on the general characteristics of Space and Time some further remarks may be worth making here.

6. *General Characteristics of Space.*—It is important to distinguish the empirical or phenomenal existence of the spatial world from the fact of side-by-side-ness in general.

The latter is essentially conceptual, and is not necessarily limited to the particular form in which spatial existence is presented to us in perception. The world as we perceive it, whether visually or tactually, consists of groups of qualities arranged in a three-dimensional system which can be regarded as homogeneous in all directions. Kant thought that these characteristics were known *a priori*; but it seems clear that this is not the case. It is possible to think of a spatial system which should have less or more than three dimensions, and in which different directions should not be homogeneous.[1] It is quite conceivable also that the dimensions of objects as apprehended by sight should not correspond to those apprehended by touch. As a matter of fact, it is very obvious that there is some lack of correspondence, not only in this respect, but in the appearance of objects apprehended by the same sense under different conditions. Distant objects seem smaller to sight than those that are near to us; and the same object in contact with different parts of the body appears to have different dimensions. But we habitually make allowance for these differences, and do not regard them as due to differences in the spatial system. We are justified in this by empirical considerations. An object that seems small may become larger in appearance by moving towards us or by our moving towards it; and it thus becomes obvious

[1] Caird supported Kant's view of the necessary limitation of our conception of space to one that is three-dimensional and homogeneous (*Critical Philosophy of Kant*, vol. i, p. 165, note); but I cannot follow his argument, unless it refers merely to the difficulty of conceiving a world in a space of a different type. I confess, I find it difficult to conceive how a fourth dimension would be placed. The nearest I can get to it is to think of the time-order, and then try to suppose that the things that exist at different times are co-existent, instead of successive. A fifth dimension might then be conceived as a different time-order. But perhaps more expert mathematicians are able to interpret other dimensions of space in a more satisfactory manner. At any rate, it is not easy to see how, as Caird maintained, the *definition* of space can limit it to three dimensions. To suppose it to be non-homogeneous seems easier; just as we may suppose all observable events to succeed one another more rapidly at one time than at another. For some remarks on the general problem, see Husserl's *Logische Untersuchungen*, vol. i, p. 251. Lotze made an elaborate attempt to show, by mathematical reasoning, that it was not possible to have more than three dimensions in space. See his *Metaphysics*, Book II, chapter ii, § 135. But it must be left to mathematicians to decide this question. Lotze himself seems to have felt some doubt with regard to the cogency of his argument. A recent article in *Mind* (October 1915) on Euclidean Space by Mr. C. D. Broad seems to me to contain the clearest statement on the whole subject with which I am acquainted. See also D. C. Macintosh's *Problem of Knowledge*, pp. 466–7.

that the alterations in its apparent magnitude are not due to its actual position in space, but only to its position in relation to us. But it is quite conceivable that the structure of the spatial system might be such that objects should actually become smaller in some parts of it than in others—i.e. that they should still appear smaller when we moved towards them. It would seem, therefore, that the structure of the spatial system, as we learn to know it in our ordinary waking experience, is essentially empirical. To some extent, the general characteristics of this spatial system cling to us even in imagination. We can hardly imagine ourselves as living in a two-dimensional space; and it is doubtful whether we can imagine ourselves as living in a four-dimensional one. In dreams, however, and under the influence of opium or other drugs, the spatial system that is presented is apt to seem considerably different from what it is in our ordinary waking experience. But we regard the spatial system of our active waking life as its normal appearance. In that system objects are regarded as occupying definite positions and having definite forms at any particular moment, even when those positions and forms are not those that they appear to have. We learn, for instance, to assign positions, forms, and magnitudes to the sun, moon, and stars, very different from those that they appear to have. For empirical purposes we seem to be justified in doing this; though it is probably true to say that it is in some respects misleading. When we regard the sun as being at an immense distance from the earth, it becomes difficult to believe that there is an attractive force between them. Probably it would be truer to say that most of the characteristics that we ascribe to the sun are rightly referred to a position very remote from the earth, but that some of them have to be regarded as extending beyond that position. Similar statements could probably be made about all existing objects. Human beings, for instance, may be remote from one another in space, and yet their mutual influence on one another may be strongly felt. It has been commonly said that a thing can only act where it is. It might be truer to say that wherever it acts, there it in some sense is. But it seems to be true at least that the more remote things are from

one another in space, the less conspicuous in general are their interactions. Hence there is a partial justification for our regarding their existence as belonging specially to particular spatial positions.

We can assign no definite limits to space, conceived simply as the possibility of side-by-side-ness in a homogeneous three-dimensional order. It does not follow from this that the objects that can rightly be regarded as occupying positions in such an order are not limited in number. But this is a question to which we shall have to return later.

7. *General Characteristics of Time.*—Time was characterized by Kant as the form of inner sense. This is certainly misleading. The distinction between outer and inner sense, or, in Locke's language, between sensation and reflection, has only a relative validity. Everything that we apprehend is necessarily apprehended as standing in a certain relation to the focus of our individual consciousness, and may be said to belong to the inner sense. Some things, however, are specially referred to objects distinct from ourselves; and some of these are definitely placed in the spatial order. Others are regarded as belonging to some system that is not definitely spatial; and some of these are referred specially to our own individual personality. All have some temporal reference, in the sense that they are apprehended at some particular moment; and all have some spatial reference, in the sense that, at the time when we apprehend them, our consciousness is related to an organism standing in spatial relations to other objects. Apart from this, it seems clear that some of the objects—especially universals—are not regarded as belonging specially either to space or to time; some are specially regarded as belonging to space, some to time, and some to both. It is true that when we attend specially to the subjective aspect of our experience, time is more prominent than space; and that when we attend specially to the objective aspect, space tends to become relatively prominent. But it does not appear that the distinction ought to be made more emphatic than this. It is doubtful whether it is even right to say that time is more universal than space, though there is certainly some ground for such

an affirmation. But we may say, in general, that all things that we commonly describe as existing have both a temporal and spatial reference. In fact, we commonly mean by existence the occurrence of something at some time and place.

As in the case of space, we have to distinguish between the temporal system and the general relation of before and after. Priority and posteriority are general conceptions that can be applied to objects of imagination as well as to things that we regard as occurring as existing phenomena in time. They can be applied also to logical relations. The premises of a reasoning may be said to be prior to the conclusion, 1 may be said to be prior to 2, and there is a natural priority and posteriority in the methodical treatment of any subject. It was this kind of priority that Descartes referred to when he said that the consciousness of God is prior to the consciousness of self; and it is this that we have in mind when we speak of presuppositions or of *a priori* and *a posteriori* aspects of experience. Such priority and posteriority readily become temporal; but at least they do not refer to any particular date. Temporal priority and posteriority, on the other hand, refer to the placing of things or events in definite positions within a continuous order of happenings. Our justification for so placing them is similar to that which we have with reference to the ordering of things in space. The moment of our present conscious experience exists for us in a sense in which past or future moments do not exist; and we regard a large number of spatial objects as existing at the present moment. We either apprehend them at the present moment or recognize that we might under certain conditions, in accordance with known orders of causal connection, apprehend them as at present existing. What is past or future is, in general, not capable of being, in any similar way, apprehended at the present moment. Here, however, as in the case of space, we have to recognize certain qualifications. We have to remember, as William James urged,[1] that the "specious present" can never be regarded as a simple point. It has to be noted also that much of what is past is apprehended by us in memory, and is con-

[1] *Principles of Psychology*, vol. i, p. 609. See also Royce, *The World and the Individual*, vol. i, pp. 420–2, vol. ii, pp. 113–26 and 130–42.

sequently present as well as past. We know it now, though we refer it to a previous time. Our activities, moreover, are constantly directed towards the future; and we can often anticipate what is future with quite as much certainty as we can know what is present. We are often in error about the past, and still more often about the future; but errors about the present are almost as common—even errors about what is involved in our own present experience, our feelings, our motives, our valuations. It would seem, therefore, that all that we are entitled to say is that present things have a more direct existence for us than those that are past, and still more than those that are future. Even this varies a good deal with different attitudes of mind. Those who are young and hopeful are apt to live largely in the future; while the old and despondent are rightly said to live mainly in the past.[1] It remains true, however, that the present has always a certain dominance. We see and hear, we eat and drink, in the present. Our sensuous life is necessarily limited in that way; and animals that do not "look before and after" are, no doubt, much more definitely limited in that respect. And, even when the past and the future are most real to us, it is still in the present that we apprehend them; and, above all, it is in the present that we choose and act.[2] But there are some special problems connected with the existence of the past and future that must be held over for consideration in the following chapters.

Time, like space, has to be thought of as indefinitely extensible order; and it is more difficult in the case of time, than in that of space, to suppose that any limits could

[1] In some abnormal cases the tendency to live in the past becomes strikingly conspicuous. See, for instance, the account of Mr. Hanna's return to his "primary personality" in *Multiple Personality*, by Sidis and Goodhart. It may be worth noting here that it used to be a common fancy, as Sir T. Browne expressed it, that "departed spirits know things past and to come; yet are ignorant of things present." Dante, in the *Inferno*, Canto X, represents some of the souls in Hades as foretelling the future, but unable to see what is present. There seems to be a somewhat similar view in Homer. Of course, such ideas have no scientific value, but they may serve to illustrate what is meant by detachment from the present, and to show that it is a conception that naturally suggests itself to the human mind.

[2] "To call up the past in the form of an image, we must be able to withdraw ourselves from the action of the moment, we must have the power to value the useless, we must have the will to dream."—Bergson's *Matter and Memory*, p. 94.

be assigned to the series of occurrences that have to be placed in it, owing to the apparent demands of the principle of causation that every event should follow upon an antecedent event and lead on to a subsequent one. It would appear from this that we cannot suppose that there is either a beginning or an end to the series of occurrences that take place in time. But this difficulty, as well as some others that are connected with the conception of change, will have to be dealt with in the succeeding chapters.

8. *The Physical System.*—The most extensive part of the objects that we apprehend in our ordinary experience constitutes what may be called the physical system—the system that can, to a large extent, be interpreted by such principles as those of dynamics, gravitation, and the conservation of energy. This system is generally believed to be limited in spatial extent ;[1] and recent theories of the degradation of energy point to the view that its existence in the form in which we commonly know it may have to be regarded as limited in time also, though some competent physicists[2] appear to think that there is a possibility that the higher manifestations of energy might be recoverable. If the latter view is a tenable one, it would probably be right to regard the physical system as going through a series of cycles, such as were conceived by Heraclitus and Empedocles and such as Virgil poetically described. It seems to be pretty well established that there is a "downward path," whether or not there is also an upward one. This it must be left to physicists to determine. Some of its more purely philosophical bearings will have to be referred to later. Meantime, what it is chiefly important for us to remember here, is, that the statement of these physical principles, however fully and firmly they may be established, does not afford any explanation of

[1] Lord Kelvin at least appears to have been fully convinced of this. See his *Life*, by S. P. Thompson, p. 1162. Arrhenius and others, however, have supported the opposite opinion. See Arrhenius, *Life of the Universe*, p. 223. I understand, however, that the views of physicists with regard to the quantity of "energy" in the material universe have been greatly modified by recent discoveries.

[2] Notably Sir Oliver Lodge. But it seems doubtful whether his view can be maintained on purely physical grounds. See also what is stated on this subject by M. L. Poincaré in *The New Physics*, p. 81.

the particular qualities that we discover in the objects that we apprehend as belonging to the physical system. The general phenomena of light, heat, sound, etc., as distinguished from the conditions on which they depend, are not explained by any physical laws; nor can it for a moment be maintained that there is any psychological explanation of them. Some special points with reference to colour combinations, contrast effects, may perhaps be capable of explanation by means of recognized laws of physics, physiology, or psychology; but the general facts remain purely empirical. The same seems to be true, for the present, of the existence of chemical elements, the modes of their combinations, and the qualities that result from these combinations; though it is possible that some of these facts may be capable of physical explanation. Sense-qualities at least have to be recognized as independent universals, *εἰσιόντα καὶ ἐξιόντα* according to the Platonic phrase, in the spatial and temporal system—having their exits and their entrances, no doubt, in accordance with definite causal conditions, but wholly unexplained in their essential nature and origin.

9. *The Relations of Objects in the Physical System.*—We are now in a position to introduce some considerations that had to be left over at an earlier stage. The consideration of the physical system as involving a definite ordering of things and events in time and space enables us to notice more definitely what is to be understood by the primary qualities that are ascribed to particular objects. In the chapter dealing with modes of unity, we called attention to the sense in which qualities, in general, may be ascribed to particular substances; but, in the main, we had to confine ourselves there to the consideration of what are called the secondary qualities. We took note, in particular, of the view that is held especially by some of the New Realists, according to which all the qualities that we apprehend in connection with particular objects are to be regarded as existing in them; and it was contended that it would be truer to say that they come into existence under special conditions. Now, I understand that Professor Nunn and some others are inclined to treat primary qualities in the same way as they deal with those that are

described as secondary. According to this way of thinking, all the characteristics of shape and size that are apprehended by us as belonging to any object are to be regarded as inhering in it. A stick that appears bent, when partially immersed in water, is to be regarded as really bent, in the same sense in which it is really straight when out of the water; and a circular object, such as a coin, is to be said to be really oval as well, since it sometimes appears so. This view, as was previously noted, seems to be a kind of inverted version of the doctrine of Berkeley. The same objections that were urged in the case of the secondary qualities would apply in the case of the primary. But there is a further objection in this case. The primary qualities are essentially the characteristics that belong to particular objects as occupying definite positions in the spatial and temporal systems. These positions can be definitely determined, and are not affected by the manner in which they are apprehended. A round object, for instance, appears differently to us, according as we apprehend it by sight or by touch, according as it is touched by different parts of our body or seen at a greater or less distance, and according to a number of other variable conditions. But the order of its distinguishable parts and their place within the spatial system are not affected by these different modes of apprehension. It is really round as an object referred to a particular part of space; and it seems right to say that it only *appears* otherwise when it is imperfectly apprehended. That the spatial system itself may be imperfectly conceived by us, is no doubt another possibility; but we mean by the size and shape of a physical object the size and shape that it has within the physical system as known to us.

10. *The Vital System.*—Life is to a large extent on the same footing as light or as the results of chemical combination; but it connects so closely with consciousness, and is in other respects so peculiar, that it calls for separate consideration. It, more than anything else, may be regarded as representing the "upward path" in the natural world. At least in the light of the modern doctrine of evolution, it is naturally so interpreted. Plato, to be sure, thought of it

rather as a "downward path"; and we may afterwards have to notice a sense in which this might be a more proper way of regarding it.[1] But, on the whole, even allowing that the general doctrine of evolution is not as yet very definitely established, it seems true to say that the growth of living forms has a certain tendency to be progressive, leading to more and more complex and highly co-ordinated types. This is at least true when consciousness supervenes, with its guiding system of valuations, becoming gradually more and more explicit. Now, the upward path in life is also one of the things for which it is not easy to find any definite explanation. Spencer's account of life as a continuous adjustment of internal relations to external relations, or as a process of more and more complete differentiation and integration, may be at least partially accepted as a description of what takes place; but it does not appear to furnish any explanation. Natural selection may account for the survival of certain types in preference to others; and this can be to some extent used as an explanation, not only of the survival of certain forms of plant and animal life, but also of the perpetuation or decay of human institutions and of scientific, philosophical, moral, and religious ideas. But it does not account for the origin of variations, and especially for the emergence of higher types and modes of unity—such as the first appearance of consciousness, and the advance in that from the sensational and perceptual to the imaginative and conceptual levels. M. Bergson has well emphasized the difficulties with regard to this, and has urged the necessity of retaining the conception of epigenesis or "creative evolution"; but his own somewhat vague conception of an *élan vital* (or the Vital Force of Mr. Shaw) does not appear to carry us very far. In the case of human life, it seems clear that valuation is largely influential in bringing about advancement; but it may be urged that our valuations are themselves affected to a considerable extent by impulses that are not consciously directed to any definite ends.

11. *Teleology*.—The fact, however, that the more conscious forms of advancement are dependent on valuations, and that

[1] See p. 462.

this is the most definite way in which we can account for them, naturally leads us to make use of final causes in the interpretation of vital phenomena. M. Bergson and others object to this. Even in human life it has been urged that "we never go so far as when we do not know where we are going"; and certainly the study of human action may often lead us to suspect that conscious purpose has but little to do with the changes that occur, whether in the way of progress or of retrogression. Yet it can hardly be doubted that reflective men and women are very largely guided in their actions by the thought of ends that are conceived by them as good; and that the recognition of such ends becomes more and more prominent in the development of human life. Whether it can rightly be said that the lower animals have any explicit apprehension of the ends to which their actions are directed, is much more doubtful; but at least it is pretty obvious that they have preferences, though it is possible, as we have already noted, that these preferences ought ultimately to be ascribed to the unconscious tendencies of the organism. How far the pursuit of ends, conscious or unconscious, can properly be attributed to the vital system in general, it would not be easy to determine. It seems clear at least that the survival of the fittest in plant and animal life does not always mean the survival of those types that we can regard as the best. Even in human life it would be difficult to maintain, on empirical grounds, that Right is always Might. Carlyle, who sought to maintain this, seems to have been driven perilously near to an inversion of the statement—i.e. to the view that things are to be regarded as right simply because, in the long run, they have a tendency to prevail. It would appear, however, that it was not on purely empirical grounds that he maintained this doctrine, but rather on the ground that "the soul of the world is just"—i.e. that the universe must be regarded as a Cosmos, in which the conception of value has a predominant place. This we shall have to consider later. In the meantime, we are merely noticing that an empirical study of the universe, as we know it, does not readily yield support to such a doctrine. Still less would it be easy to extend such a view from the vital system to the more purely physical system, in which, as we

have seen, a downward path is more apparent than an upward one. Hence, from the time of Bacon and Descartes at least, final causes have tended to be eliminated from scientific study. Teleology has come to be regarded as at best "a virgin consecrated to God," which produces nothing. The general study of the empirical universe certainly does not suggest a perfect design. It would be more natural to think of it as the outcome of contending forces, like the Ormuzd and Ahriman or the God and Devil of some forms of religious speculation, one striving upwards and the other downwards. We are, in short, confronted with the problem of evil, whenever we try to introduce final causes into the study of nature. This problem will have to be considered in the next chapter.[1]

12. *Is Our Universe a Cosmos?*—Yet it is at least hard to see how, without the conception of final cause, our universe could be regarded as a perfect order. Change is not necessarily fatal to order, if it can be regarded as leading in a definite direction, and pointing to a result that contains a higher perfection. Now, it must be admitted that the universe, as we know it, cannot readily be interpreted in this way. Hence it would seem that, if the conception of a complete Cosmos is legitimate at all, it must rather be applied to something that can be distinguished from our phenomenal universe. Some, such as Plato and Kant and many Oriental speculators, have sought to remove this difficulty by contending that the phenomenal world is not, in any ultimate sense, real. On this point something further will have to be said in a later chapter. But, at any rate, that it is in some sense real, is sufficiently obvious. Another way of meeting the difficulty would be by maintaining that, though it is real, it is not the whole of reality. It has already been noted that the conception of the human universe has been gradually extended, and is now extremely different from what it was in earlier times. There is no particular reason for supposing that we have come to the end of this process of extension. There may, for instance, be many more qualities in the phenomenal world than we are as yet capable of apprehending—perhaps many more than we, as human beings, may ever be capable

[1] See also Chapter IV, § 2.

of apprehending. There may be more dimensions in space than the three within which we arrange the qualities that we know. And there may be other respects in which our universe is capable of further extension. If this is admitted, then the question before us is not, whether what we know is of such a kind as to justify us in regarding it as a Cosmos, but rather whether it is of such a kind as to justify us in regarding it as part of a larger whole to which the conception of a self-explanatory Cosmos might be applicable. There are obvious difficulties even in the way of this. It might be expected that even a limited portion of a perfect Cosmos would display a more complete order within its limits than we seem to discover in the world as we know it. The chief difficulties that thus present themselves will have to be considered in the next chapter.

13. *The Province of the Empirical Sciences.*—In the meantime, it may be well at this point to try to guard against a misconception that is apt to arise with regard to the relation between philosophy and the special sciences. It is sometimes apt to be supposed that there is a certain opposition between them—that what the one side accepts as truth, the other has to reject as error. There does not appear to be any real foundation for such a view. Even Kant, who made a rather sharp distinction between the phenomenal and the noumenal worlds, was fully as much concerned with the justification of the work of the sciences within the former as with providing grounds for affirming the reality of the latter. It is obvious that no purely philosophical speculation can tell us about the particular structure of the world in which we find ourselves; nor would philosophy have any solid basis for its attempted constructions without the knowledge which the special sciences provide. On the other hand, the limitations of the special sciences are surely sufficiently apparent. They do not furnish us with those ultimate explanations for which the human mind inevitably looks. Whether philosophy can really succeed in finding them, is a question that we have still to consider. At any rate, it is its business to try. Meantime, philosophy and the special sciences are best regarded as friendly critics of one another.

Philosophy has to consider the conceptions that are used by the sciences, to point out their hypothetical character, and to show that the explanations that they offer cannot be accepted as complete and ultimate. The sciences may very well retort upon philosophy, that its explanations are in many cases not *veræ causæ*, that they are inconsistent with what is known of the particular facts of our experience, and perhaps even inconsistent with one another. Happily, even philosophers themselves can generally be trusted to render this service to their speculative brethren. What we must hope is that gradually the exact limitations of the special sciences will be recognized, and that philosophy will discover possible interpretations that are at least not inconsistent with the knowledge that is discovered by the sciences, and that may even have some foundation in the general tendencies of such discovery. Among the empirical sciences, it seems clear that Psychology ought to be included. On the other hand, Mathematics, Logic, and Ethics are in the main concerned with universal conceptions, and are thus more closely related to the general domain of philosophy. What follows in the next three chapters is an attempt to deal with the ultimate problems that are raised by the philosophical inquiry into the possibility of regarding the universe as an intelligible whole. We may, however, notice here what appear to be the chief alternatives to such a view.

14. *Alternatives to Cosmism.*—The view that it is sought to maintain, and that indeed seems necessary for any genuine philosophical construction, is that which has already been described as Cosmism. As we have seen, many writers have, in opposition to this, defended the doctrine of Pluralism. Dr. Ward has recently, in defending a somewhat qualified form of Pluralism,[1] contrasted it with Singularism. But it would seem that there are very few philosophers whose views can be rightly characterized by that term. Pluralism is usually understood to mean the affirmation of the existence of many independent substances, however these may be conceived,

[1] In *The Realm of Ends.* The convenient term Singularism seems to have been first used by Professor Külpe (*Introduction to Philosophy*, p. 107). This ought not to be confounded with Monism, which may be pluralistic (as with James).

whether as the Atoms of Democritus or the Monads of Leibniz or the less definitely determined Entities of the New Realists, or in any other way.[1] Singularism would then mean the doctrine that there is only one substance, a doctrine that may be fairly ascribed to Parmenides and Spinoza, but hardly to any other philosopher of importance. Cosmism, on the other hand, I take to mean the general doctrine that there is a system of reality, which contains both unity and difference. Most of the arguments in support of Pluralism seem to be based on the assumption that Singularism is its only alternative. William James directs his arguments against a "block universe." Professor Taylor argues [2] that we cannot ascribe the qualities of an individual, such as John Smith, to the single substance of the Universe. But Cosmism, as I conceive it, does not involve any such ascription. It only holds that the qualities of John Smith are a selection from the qualities that belong to the universe, and that the way in which they appear in John Smith depends on the general structure of the whole. It must be confessed that Mr. Bradley's use of the term "adjectival" as indicating the relation of particular finite beings to the whole lays him open, to some extent, to the kind of criticism that is made by Professor Taylor.[3] But, if I understand Mr. Bradley rightly, he does not intend this to be taken as an ultimately satisfactory characterization. His view is rather expressed in the saying that the Absolute "lives in its appearances." The real difficulty about his position seems to me to be that no forms of expression are quite adequate to make it clear. Hence a variety of more or less unsatisfactory expressions have to be used. In the main, however, his general conception seems to be of the type that I here characterize as Cosmism—i.e. he regards reality as a system containing differences, though he

[1] Dr. McTaggart, as we have noticed, emphasizes the substantiality of individuals, and thus inclines somewhat towards pluralism. But, as he regards them as constituting a systematic unity, he ought, I think, to be reckoned as a cosmist, in the sense in which that term is here used.

[2] In a discussion entitled "Why Pluralism?" published in the *Proceedings of the Aristotelian Society*, vol. ix (especially p. 205). Professor Muirhead's defence of Idealism or Cosmism in the same discussion should be referred to. See also his article on "Idealism" in the 11th edition of the *Encyclopædia Britannica*.

[3] See his *Principles of Logic*, pp. 70–1. For some further criticisms on this, see Professor Pringle-Pattison's *Idea of God*, pp. 271–5.

considers that neither the system nor the real nature of its differences can be adequately apprehended. Some modes of apprehension, however, he conceives to be more adequate than others. This I understand to be what he means by Degrees of Truth.

The general argument in support of Cosmism is that it is the only view that offers any intelligible account of the existence of a many in one; and that the Universe, as we know it, is a many in one seems almost self-evident. Hence the only real alternative to some form of Cosmism is the view that there is some more or less chaotic element in the Universe. Dr. Ward and others recognize such a chaotic element,[1] which they call Contingency; and it must certainly be confessed that there seems to be some *prima facie* ground for recognizing some lack of complete order in the Universe, as we know it. Plato and Aristotle could not avoid such a recognition; and it is open to question whether more recent attempts have been more successful. What we have now to ask is, whether there are any real grounds for supposing that such elements cannot be eliminated. And here it may be well to confess at once that I think there are grounds that make it extremely difficult to effect any such elimination. It is by no means with a light heart that I enter upon the following attempt to show how it may be done. The attempt to remove the difficulties is a voyage of discovery through stormy seas. One may well imagine that he was a bold man who first tried it. *Illi robur et æs triplex circa pectus erat.* Happily the earliest adventurers had a very imperfect realization of the difficulties; and we may profit by their failures. But, even after all that has been done, one has still to approach the problem with grave misgiving. Yet, if there is to be any real philosophical construction at all, we must make the attempt. "It may be that the gulfs will wash us down"; but, even if we never reach the happy isles, our disaster may at least serve to indicate where the rocks and shoals are to be found.

[1] I do not understand Dr. Ward to hold that it is really chaotic. His point seems to be that we have to begin by recognizing an aspect of contingency in the universe as we know it, and that we cannot wholly eliminate this element. With the former contention I agree, and I fully admit the difficulty with regard to the latter; but Dr. Ward does not appear to have made it quite clear whether he does or does not accept Pluralism as ultimate. Lotze has a similar ambiguity.

CHAPTER II

SOME ULTIMATE PROBLEMS

1. *General Survey.*—There are many difficulties that at once present themselves to us when we try to think of the Universe as a completely ordered system, or even as a part of such a perfect order. Perfection admits of no deficiency; and, in observing the world as we know it, it is not easy to share the conviction of Browning that "all is beauty." It rather seems as if our Universe had not merely those imperfections that might be expected in what is only a part of a perfect whole, but had also blemishes of a more positive kind that, if not absolutely inconsistent with the idea of a perfect whole, at least do not suggest any such perfection, or supply any definite grounds for believing in it. One blemish is the apparent contingency of its structure. Notwithstanding the apparent universality of causal connections in detail, the general structure of our Universe conveys an impression of haphazard arrangement; and, though this impression might be modified by fuller knowledge, it is not easy to believe that it could be wholly removed. Why, we are apt to ask, should life appear at a particular stage in the history of a small planet in one of the great stellar systems; and why in forms that are so ill-adapted to maintain and develop themselves? There may of course be living beings in other parts of the Universe; but, if so, it would seem probable that they are not very different from those that exist on our own planet, and that they have grown up in a similarly haphazard fashion, and may be as little adapted for continuance or for perfection. We discover an orderly way in which things occur; but the things that occur seem in themselves somewhat chaotic, and are far from suggesting that they belong to a perfectly ordered whole. In addition to this problem of Contingency, and closely con-

nected with it, there is that of Change. No existent thing seems to persist for any considerable time ; and, as we have already seen, there are some grounds for believing, in accordance with the recognized laws of Thermodynamics, that the whole physical system with which we are connected is destined, within a measurable time, to dissolve completely and "leave not a wrack behind." It would seem, therefore, that the universe that we know cannot be regarded as a permanent part of a perfect order ; and, if it is not permanent, it is not easy to see how it can have any real place at all in such an order. Then, again, even allowing that we may be entitled to take a more hopeful view of the system to which we belong, even if we may suppose that its "downward path" is to be followed by an upward one, it would seem that that would, in its turn, be followed by another downward one ; and, though there may be a certain orderliness in the recurrence of such cycles, it is yet hard to see how such a building up and pulling down can be regarded as constituting a perfect order. It seems clear at least that there is much that is evil in the process ; whereas it would appear to be necessary to think of a perfect order as being essentially good. It may of course be urged that the apparent Contingency, the Change, and the Evil are necessarily involved in the existence of the finite ; and that the infinite whole may, nevertheless, be perfect. This raises the problem of Finitude. Can it be recognized that an infinite whole may be perfect, while yet it consists of finite parts that are necessarily imperfect? There are thus at least four closely related problems that call for consideration—those of Contingency, Change, Evil, and Finitude. The difficult question of Infinity must be reserved for the next chapter. In the present chapter we must make some attempt to deal with the other three problems, though it may not be possible to keep the various problems entirely separate from one another. It is pretty obvious that they are very intimately related.

2. *The Problem of Contingency.*—The conception of a perfect Cosmos has as its opposite the conception of an absolute Chaos. It seems clear that the latter is not applicable even to the partial and imperfect Universe that we know. But

there are certainly aspects of the Universe as we know it that suggest the presence in it of some elements of chance or contingency. This has always been felt, in some degree, by those who have tried most strenuously to think of reality as a coherent whole. Plato, for instance, while maintaining that ultimate reality—the "really real"—can only be intelligibly conceived as an order determined by the conception of Good, was yet forced to recognize, especially in the *Timæus*, that the world as we know it has to be interpreted by the supposition that the perfect order is somehow thwarted by a certain limiting element which he described as ἀνάγκη. The Demiurge, guiding himself by the idea of the Best, has to embody it in an imperfect material, which shows more and more, as he proceeds, its inadequacy for the realization of such a perfect spiritual unity. Aristotle, in like manner, was led to compare the life of Nature to that of a slave, to whom, on account of the inferiority of his character and position, a certain licence has to be conceded.[1] Leibniz also, holding that our Universe is the best that is possible, yet allowed that, on account of its finitude, it cannot be wholly perfect. Even Hegel, contending that what is actual is rational, admitted that Nature has to be regarded as a sort of Bacchantic dance, in which no perfect order is discoverable.[2]

Now, it is no doubt true that the apparent disorder of Nature has been partly removed by the more complete study of it that has been made by modern science. It does not appear as chaotic to us as it did to Plato, or even as it did to Hegel. Things that once seemed lawless have been found to

[1] *Metaphysics*, xii, 10. See also Caird's *Evolution of Theology in the Greek Philosophers*, Lecture XIV.

[2] Professors Pringle-Pattison (*Hegelianism and Personality*, pp. 134-40) and James Ward (*The Realm of Ends*, p. 140) have criticized Hegel's view of the contingency of Nature somewhat severely. But it seems to me to be a quite logical part of his general doctrine; and he has surely much better grounds for maintaining it than either Plato or Aristotle had, owing to his more definite conception of the place of negativity in the structure of our universe. A perfectly ordered system seems to imply some imperfection in the order of the parts. Of course, this would not mean absolute disorder, which seems to be unmeaning; but only such a relative disorder as may be said to exist in a collection of stones and wood before a house is built. Such relative disorder is seen even in the life of spirits; but we naturally expect to find it still more obviously in the material world. But this will be more definitely considered in the following sections and in Chapter IV. It involves an interpretation of the time-process.

exhibit a definite order of causal connection; and some may be disposed to think that a more thorough investigation of it may be expected to eliminate every trace of disorder. But it is still not altogether easy to believe this. Setting aside for the present the question of the existence of what is actually evil, we have still to acknowledge an appearance of contingency in some aspects of our Universe, which it hardly seems possible for any conceivable explanation to remove. Laplace thought that it would be theoretically possible for an ideally equipped calculator to predict from any existing state of our Universe everything that would ever occur in it. But, in any case, this would only be possible to one who had a perfect knowledge of some existing state. How that existing state came to be what it is, would still remain to be accounted for. Besides this, the supposition that modes of existence could be predicted, seems to involve the assumption that there are no qualitative differences to be considered, which seems to be obviously untrue. It seems clear that the appearance of colour could not be predicted in any state of the Universe in which every existing being was blind; and every other specific quality would be equally unpredictable until it had actually made its appearance. When all the qualities are present, and the laws of their combinations are known, prediction may be possible; but who can tell how many qualities there may be that have not yet emerged in any known experience, and who can tell under what special conditions they will emerge? The particular qualities that appear in our Universe present themselves to us as quite arbitrary; and it does not seem possible to conceive of any kind of explanation that would make them cease to be arbitrary.[1] It is only by actual experience that we learn what they are, and in what circumstances they may be expected to appear. Again, if the system of our Universe is finite, there is a certain number of things of each specific kind in it; and it is hard to see how there can be any ultimate explanation of the existence of that

[1] Difficulties of this kind appear to weigh a good deal with Professor Höffding. See, for instance, *The Problems of Philosophy*, p. 114. It seems to be largely on account of such considerations that he describes himself as a "critical monist"—or, as I should prefer to say, a tentative cosmist. On the contingency of Nature, see also Professor Hobhouse's *Theory of Knowledge*, p. 464.

particular number, rather than any other. From the number of existing things at one time, we may be able to deduce the number that will exist at another time; but the existence of the initial number does not seem to be capable of explanation. All scientific explanations presuppose the existence of certain things, and have also to recognize the emergence of things that are qualitatively different at particular stages in the general history of the Universe. However perfect the ordering of these particular things may be, there remains what may be described as the surd of particularity, which is unsolved by any method of explanation, and of which no solution seems, on the face of it, to be even conceivable.

It may no doubt be urged that this appearance of contingency in the world as we know it, while fatal to the recognition of one kind of order, may supply a basis for the recognition of a different kind of order that is more truly explanatory. If it is fatal to a mechanical interpretation, like that which is suggested by Laplace, it may be quite compatible with a teleological explanation. Hence some recent philosophers have even welcomed the appearance of contingency, as pointing us to a more spiritual conception of the Universe. Perhaps the most striking expression of this attitude is that which has been recently given by Dr. James Ward. His general contention is that the presence of an element of contingency in the Universe gives scope for the exercise of free choice; and that it is thus justified from the point of view of a teleological order. There are some difficulties in the way of this; but, as they are chiefly concerned with the existence of evil, they need not specially trouble us at the present point, except in a very general way. Even from a teleological point of view, as we have partly noted already, it is not altogether easy to see how the particular structure of our Universe could be explained. If choice is to explain the structure of our Universe, it would seem that it must be the choice of what is best; and, as we have already noted, it would not be easy to see how the particular structure of the world as we know it could be shown to be better than any other. There would seem, however, to be two ways in which it might be thought that this objection could be removed; and it may be well to notice

them at this point, though we are not yet in a position to discuss them fully.

When it is urged that any choice that is ultimately explanatory must be the choice of the best, it is assumed that things can be arranged in a definite scale of values, in such a way that one of them stands absolutely above all others. It might be contended that this is not a legitimate assumption. Leibniz seems to have thought of all the possible worlds, as forming a sort of pyramid, of which the one at the apex was the best, and was consequently chosen. It seems conceivable, however, that a number of possible worlds might all be of equal value; and then there would be an element of arbitrariness or contingency in the choice of one. The famous ass of Buridan was supposed to be in a position of this kind between its two bundles of hay; and there are occasions on which human choice has a similarly arbitrary character. It is obviously important in many human relations that the things we deal with should have approximately equal values. This is especially true of things that are used as instruments of exchange. Pennies are all regarded as being equal in value; and people have seldom any really decisive ground for choosing one of them rather than another. Two roads, in like manner, may be to all intents equally good for the purpose of a walk, or for reaching some particular place. It is true that men generally find some ground for selecting one. They take the penny that is nearest them, or the road that they happen to be facing; or, in a difficult case of choice, they may devise some method of casting lots. In some extreme democracies, where all men are regarded as equal, such methods may even be adopted in the selection of rulers. Such methods of choice are arbitrary, in the sense that they do not depend on differences in the values of the objects that are selected. Of course, if the analysis of choice that was previously given is correct, there must be an element of valuation even in such cases as this. But what is valued is the method, rather than the object to which it is applied. A particular method—such as that of casting lots—is selected as being good; and then it is applied to a special case. Now, it may be supposed that there are a number of conceivable world-orders that would be equally

good; and that the Demiurge has arbitrarily selected one. No doubt we still have to suppose some ground of selection; but it might be a quite trivial ground. There would be nothing in such a supposition contrary to the view that the best is selected, and yet there might be an element of arbitrariness in it. There are difficulties, however, in the way of thinking of our Universe as being constructed in such a way; and these we shall have to notice later.

The other way of meeting the difficulty is by means of the conception of infinity. It may be urged that the appearance of contingency is due merely to our very partial view of the Universe. In the infinite whole, it might be said, there may be room for every conceivable quality and combination of qualities. If, for instance, we may suppose that the energy of the material system need not be permanently degraded, there might be an endless series of cycles in our Universe; and it need not be assumed that these cycles would simply repeat one another. The upward path that followed upon the downward one might lead to the emergence of a quite different set of qualities, combined in different modes of unity, and in accordance with different laws. Such a conception, however, raises the problems of change and infinity; and, of course, it leaves the problem of evil untouched. Hence we cannot at this point discuss the adequacy of such a solution; but it must be borne in mind as a conceivable hypothesis to be dealt with later.

Such considerations may at least enable us to see that, perplexing as the problem of contingency is, it is not necessarily a fatal bar to the view that the Universe as we know it may be a part of a perfect Cosmos.

3. *The Problem of Change.*—The fact of change has always presented a serious problem to constructive philosophers since the time of the Eleatics, if not even from an earlier date. Parmenides, at any rate, was convinced that what really exists must be supposed to exist always. Zeno supported this contention by means of some special difficulties, especially relating to the particular mode of change that is involved in motion; but, as these difficulties are largely concerned with the conception of infinity, they may for the

present be set aside. What we have to consider here is rather the quite general difficulty involved in the transience of temporal existence. There are two ways in which this transience may be conceived. We may think, as Descartes did, of each moment of temporal existence as separate from every other; so that what exists at any moment is a fresh creation, kindled and extinguished in a single flash; or we may think of each moment, as Heraclitus did, as a transition from one mode of existence to another, so as to constitute a perpetual flux. Neither of these views seems to be compatible with the conception of a coherent Universe. According to the one view, what exists at any moment has no real connection with what exists before or after, but has to be separately explained: according to the other view, there never is any existent reality, but only a transition from one unreality to another. Some have sought to remove this difficulty by emphasizing the unreality of change; but it is clear that it must, in some sense, be recognized as real. Plato sought to distinguish between the kind of reality that belongs to the world of becoming and that which belongs to what exists eternally; and this doctrine has been essentially reproduced in several modern theories—especially in the Kantian distinction between the phenomenal world and the realm of noumena; and, indeed, there seems to be a similar antithesis in the Oriental conception of the Universe of our ordinary experience as Maya or Illusion.[1] But even an illusion has to be accounted for and made intelligible. The opposition between what is illusory and what is ultimately real has been somewhat softened by the conception of Degrees of Reality, which has been so powerfully emphasized by Mr. Bradley; but the value of such a conception depends altogether on the way in which it is to be interpreted. It is difficult to give

[1] It is noteworthy that even so pronounced a "realist" as Mr. Russell remarks (*Our Knowledge of the External World*, p. 167): "A truer image of the world, I think, is obtained by picturing things as entering into the stream of time from an eternal world outside, than from a view which regards time as the devouring tyrant of all that is. Both in thought and in feeling, to realize the unimportance of time is the gate of wisdom." He adds, however (I think rightly), "But unimportance is not unreality." No doubt he would recognize also that to picture things as "entering into the stream of time" seems to presuppose a previous time, and is, consequently, not a completely satisfactory way of picturing things.

it any other interpretation than that which is involved in the recognition that the changing system of our experience is to be taken as only a partial aspect of a more complete whole ; and it remains to be considered, how it can be so regarded. If the whole is essentially eternal, it is not easy to see how even the appearance of transience can be a partial aspect of it.

A considerable step towards the solution of this difficulty was taken by Kant in his contention that only that which persists can be regarded as changing. Change, without persistence, could only mean the substitution of one thing for another. But it seems equally true to say that only that which changes can be regarded as persisting. If we try to think of persistence without change, we can only represent it to ourselves as an eternal now—i.e. as an existence which is purely momentary. Professor Bergson's conception [1] of "real duration" has some value in this connection, and partly serves to reconcile the ideas of change and permanence. Green also brought out very well the fact that our human consciousness, though involving change, is, in a very real sense, an "eternal consciousness"—not merely in the sense that it apprehends unchanging Universals, but that, even in apprehending what changes, we apprehend it as still persisting. When we say that what is done cannot be undone, we are recognizing that a certain reality has still to be ascribed to what is past. The past and the future are, in fact, in quite a real sense, present to us, as well as the moment in which the apprehension of them comes to us. Real memory means the persistence of our past experience ; and real hope implies a projection into the future. But, in order to understand this, it is necessary to reflect a little further on the nature of time.

The essential question would seem to be this—whether the relation of before and after can retain a meaning for us without the acknowledgment that what exists before another, passes altogether away when the other comes into being. Now, that there is a sense in which this is possible, is made apparent by what happens in the case of works of imagination. A play of Shakespeare contains a record of events that occur one after another, and would be meaningless apart

[1] See also Ward's *Realm of Ends*, pp. 306–7.

from that order; and yet the whole record of these events (which never existed otherwise than in that record) has persisted for more than three hundred years, and may be expected to persist for an indefinitely longer time.[1] It may be objected that the events there recorded are unreal; but this only means that they have no place in the universe of phenomenal existence. That universe itself may have no place in some other system, and yet would not, on that account, cease to be real. Everything is real in its own place, and is non-existent out of its place; and surely we may add that everything is eternally real in the place to which it belongs, and, if we like to make it still more emphatic, really real and absolutely real. Let us try to see more clearly how such reality may be conceived as eternal, and yet as containing change.

In order to do this, it will be well to depart from the Platonic image of a Demiurge that was employed in the previous section. Instead of a Demiurge, let us think rather of a Poet or Dreamer. If we were to assume that the phenomenal Universe is the dream or imaginative construction of a great Spirit, we might suppose that it has a coherent significance, to which every part is relevant; and we might suppose also that it persists eternally. It may be objected that, in that case, it would be true to say that it is only a dream, and not a reality. But is not a dream real? We commonly think of our dreams as unreal, because they lack the kind of coherence that belongs to what we call the world of fact.[2] A thoroughly coherent dream would be perfectly real, especially if it could be supposed to persist eternally. At any rate, it was no mean interpreter of the Universe who told us that "we are such stuff as dreams are made of." But, it may be asked, is it not at least somewhat absurd to suppose that the consciousness of one being can be only the dream of another? Is it not a supposition that belongs rather

[1] I find that this illustration (which I have used on several previous occasions) has been used independently by Dr. F. B. Jevons. I suppose it naturally occurs to any one who tries to think of a time-order which can be regarded as not simply transient. See also Professor Pringle-Pattison's *Idea of God*, Lecture XVIII, and the fuller statement given below in Chapter IV, § 8.

[2] Some interesting remarks on the relations between dreams and reality will be found in Mr. Bradley's *Essays on Truth and Reality*. See also Dr. Schiller's *Riddles of the Sphinx*, *Studies in Humanism*, and his article in *Mind*, July 1915. The views of the Vedantists are referred to at the end of Book III.

to the realm of Alice's Adventures than to that of sober speculations? Did not even Alice rightly resent the supposition that she was only a part of the Red Queen's dream? I think it must be admitted that the conception of a dream has some degree of inadequacy at this point. It might be better to think rather of an imaginative construction. The persons in an imaginative construction have a certain independence of their creator. Iago is part of the imaginative construction of Shakespeare; but he has a character of his own as well, quite distinguishable from that of his creator. He is not simply to be described as one of the ways in which Shakespeare pictures things, but rather as a form in which Shakespeare for the time embodies himself, or an attitude in which for the time he places himself. Might we not suppose that the universe of human life is a somewhat similar, but vaster and more coherent, manifestation of a creative Spirit, or perhaps even of a number of creative Spirits; and that it is at least as immortal as the creations of Homer or Shakespeare are?[1] But it may be asked, Is this to be taken to mean that the phenomenal Universe is to be supposed to be recreated in cycles that for ever recur? To answer this, it would be necessary first to consider the problem of infinity, which we have not yet reached. Moreover, we have still to ask how such a conception bears upon the problem of evil. We may understand why Shakespeare created Iago, because he was "holding the mirror up to Nature"; but why did Nature create Cæsar Borgia? This we must now try to guess. All that is contended, up to the present point, is, that it seems not impossible, by means of some such conception as that which has now been suggested, to get at least some hint of a possible solution of the problem of change.

4. *The Problem of Evil.*—The problem of evil is probably the hardest of all those that stand in the way of the concep-

[1] Edward Caird once remarked that any one who thoroughly understood Shakespeare would have got a considerable way to the understanding of God. But I am not necessarily suggesting here that the Spirit that is referred to would properly be regarded as God. It may be objected, of course, that the characters of Shakespeare are not real persons. But, if it is the case that the essence of personality consists in an attitude of soul, it seems true to say that they are in that sense real creations.

tion of a perfect Cosmos. Contingency and change are difficulties mainly because they present themselves as being in some degree evil, inasmuch as they seem to involve the recognition of an order that is not wholly perfect. Yet, even if we grant that the problems of contingency and change are capable of some solution, the problem of evil cannot be said to be entirely removed thereby. Its difficulty might even seem to be enhanced. The removal of contingency as an ultimate aspect of reality might seem to fix the existing evil more rigidly than ever as a definite part of the established order of the Universe; and the elimination of transience might appear to fix it there eternally. Now, it is certainly hard to see how any system in which evil has a permanent place, or even in which it has any real place at all, can be regarded as a perfect Cosmos. For it would seem that it is only by means of the idea of Value that any ultimate explanation of the order of the Universe can be conceived; and this seems to imply that the whole of reality must be regarded as good. It may, indeed, be urged that we ought rather to regard the whole as being, in some sense, "beyond Good and Evil." It may be contended that the opposition between good and evil belongs only to the human point of view. It might be held that the conception of what is perfect should be found rather in the idea of Beauty than in that of Good; and that all excellent beauty involves, as Bacon said, "some strangeness in the proportion," or at least a certain individuality which implies distinction and some degree of opposition. Dr. Bosanquet suggests, if he does not definitely maintain, some such distinction between what is perfect and what is good; and Spinoza's conception of the perfect whole seems to be one to which the idea of goodness is not applicable. This we shall have to consider more fully at a later point. In the meantime, it may be best to confine ourselves to the question, whether it is possible to regard evil as unreal, in the same sense in which change may be regarded as unreal—i.e. as existing only from a partial point of view, and disappearing from the point of view of the whole. This doctrine seems at least to have been maintained by Hegel; and we have to ask whether there are any insuperable difficulties in the way of it. Dr. McTaggart, himself

a disciple of Hegel, has urged that a single pain or a single ungenerous thought is fatal to any conception of the Universe as being perfectly good. Now, that there is an appearance of evil in the Universe as we know it, is not a matter that needs much emphasizing here. The emphasis on it is to be found in all the literatures of the world, and indeed is sufficiently found in the experience of every individual; and it has been marshalled with abundant force in the philosophizing of the Pessimists, who even make it appear that the evil in our world is more conspicuous than the good. Even some who, like Carlyle, profess a faith that is ultimately optimistic, are often to be found laying more stress on what is evil in things than on what is good. In opposition to Leibniz, Carlyle spoke once of this as being "the strangest of all possible worlds"; and he even permitted himself to describe it as a "dog-hole of a world." The more definite pessimism of Byron is well known:—

> Count o'er the joys thy days have seen,
> Count o'er the hours from anguish free,
> And know, whatever thou hast been,
> 'Tis something better not to be.[1]

Pessimism of this kind is specially prominent in some forms of Oriental speculation, and is expressed in the conception of Nirvâna or the everlasting No (*neti, neti*), the crushing out of all desire and separate individuality, as the goal to which human effort must be directed. On the other hand, when we consider the fine virtues that are evoked by suffering, and even by the struggle against sin and wrongdoing, and when we realize how difficult it would be to think of such virtues as being evoked in any other way, we may be inclined to believe that human life is, after all, a thing that it was worth while to have in the Universe; and that the knowledge of good has been bought somewhat *cheap* "by knowing ill." This side was powerfully brought out by Browning in his poem on Rephan; and, indeed, it may

[1] Expressions of a similar kind are to be found in the literatures of almost all times and countries. Byron's lines seem to be almost a direct translation of some of the utterances of Theognis and Sophocles. See Adam's *Religious Teachers of Greece*, pp. 66, 179, etc.

almost be said to be the text of all his teaching;[1] and it has recently been very well developed by Dr. Bosanquet. But still, it may be said, a Universe which contains such a mixture of good and evil can surely not be described as perfect. The question, however, is rather, whether it can be regarded as part of a perfect whole. Dr. McTaggart seems to contend that the conception of a perfect whole excludes the existence of evil in any part. A perfect whole, it is urged, would contain all that is fine in human life without the need of any sin or suffering to evoke it. To this it may be objected that, at any rate, we can form no definite conception of such a perfection; and that it remains, in consequence, a somewhat vague and empty notion, expressing little more than a general dissatisfaction with everything that is actually known. Attempts such as that of Milton, to depict a blissful paradise, whether terrestrial or celestial, in which all the roses are without thorns, are somewhat unconvincing, and seem to depend for most of the interest that they possess, upon the background of imperfection and evil, actual or potential, against which they are painted. Perfection, it would seem, can only be positively thought of as that which would give ultimate satisfaction to the totality of our desires; and the very fact that it has thus to be thought of in direct relation to desire, makes it impossible to think of it as something that could be immediately attained without any consciousness of want. Descartes, indeed, urged definitely that the perfect cannot be thought of as being attained through a process; but this is one of the rather numerous assumptions that are contained in the Cartesian philosophy; and what truth there is in it would seem to be sufficiently recognized in the conception of a changing system that is eternally real. Now, if perfection is actually to be realized through a process, it would seem that an initial lack of perfection is involved in its very essence; and this can hardly be thought of otherwise than as implying evil. It may be urged, no doubt, that there might at least be imperfection without the positive evil that is involved in pain and sin. But does this mean anything more than that there might be evil without the con-

[1] See Sir Henry Jones's striking book on *Browning as a Philosophical and Religious Teacher*, especially chapter viii.

sciousness of it? The animals, as Walt Whitman says, do not lie awake thinking of their sins; and it may be true, though that is more doubtful, that not one of them is discontented or unhappy.[1] But may it not be contended that it is better to be conscious of evil than to be subject to it unconsciously? Indeed, if it is through conscious choice that good is to be realized, it would seem that the recognition of evil is an essential element in the process. The knowledge of good implies the knowledge of evil as its opposite; and surely any form of ignorance would in itself be evil. On the other hand, it is no doubt true that if the Universe is to be thought of as actually perfect, the realization of this perfection must not simply be thought of as a "far-off divine event"—certainly not as a mere ideal that is never consciously achieved. Nor can we well accept such a view as that which was epigrammatically expressed by Mr. Bradley in the saying that "this is the best of all possible worlds, and every particular thing in it is a necessary evil." It would seem, indeed, that the Universe could hardly be regarded as perfect if any conscious being were wholly debarred from the enjoyment of its perfection. It is for this reason that some conception of human (and perhaps even of animal) immortality seems to be essential to any optimistic theory of the Universe. But whether this must be conceived as a quite definitely individual immortality may, as we have already to some extent noticed, be much more open to question.[2] The

[1] Surely the sufferings of animals are, in reality, one of the chief obstacles in the way of an optimistic interpretation of the world. Tennyson's "nature red in tooth and claw" may suggest an exaggeration; but there does not appear to be much exaggeration in the statement of J. S. Mill: "If there are any marks at all of special design in creation, one of the things most evidently designed is that a large proportion of all animals should pass their existence in tormenting and devouring other animals" (*Three Essays on Religion*, p. 58). It is probably true, however, that the pains and troubles of animals do not mean as much for them as we are apt to suppose. We tend to endow them with our own consciousness of what they miss and suffer.

[2] "In the question of individual immortality," says Guyau (*Non-religion of the Future*, p. 522), "two great forces drag human thought in opposite directions. Science is inclined everywhere to sacrifice the individual, in the name of natural evolution; love is inclined, in the name of a higher moral and social evolution, to preserve the individual. The antinomy is one of the most disquieting that the philosophic mind has to deal with." But it would seem that even the "higher moral and social evolution" would call for some transformation of the individual as such.

conception of all conscious lives as parts of one life, or perhaps as parts of the lives of Spirits greater than human, may possibly furnish a more satisfactory solution; provided always that in the life of that spirit, or in the lives of those spirits, the conscious existence of every human individual (and perhaps of every other living being as well) had a definite and abiding place. Conscious beings aim at persistence, but they aim also at transmutation into higher forms.[1] If we could think of all living beings as passing through successive stages of consciousness, leading them at last to the contemplation and enjoyment of the whole as a system that is perfectly beautiful, the problem of evil might be held to be finally solved. In our ordinary individual lives, past pains are not counted of much moment when they are seen to have led to something better which would not really be conceivable without them. As it is here, however, that we seem to encounter the most obstinate of all the difficulties in the way of the conception of the universe as a perfect order, it may be well to add some further remarks in a separate section on the nature of the relation between good and evil, and the possibility that the latter may be absorbed in the former.

5. *The Good of Evil.*—It is pretty generally recognized that there is a soul of goodness in things evil. Courage and sympathy, for instance, are qualities that we value. It seems clear that without them life, as we apprehend it, would be a much poorer thing than it is. Yet it is impossible to form any definite conception of such qualities without postulating the existence of danger and suffering.[2] It would seem,

[1] The following remarks by Mr. H. G. Wells (*First and Last Things*, pp. 81–2) may be worth quoting at this point: "I believe in the great and growing Being of the Species from which I rise, to which I return, and which, it may be, will even ultimately transcend the limitation of the Species, and grow into the Conscious Being, the eternally conscious Being of all things. Believing that, I cannot also believe that my peculiar little thread will not undergo synthesis and vanish as a separate thing. . . . The great things of my life, love, faith, the intimation of beauty, the things most savouring of immortality, are the things most general, the things most shared and least distinctively me." Yet it may be urged, with Guyau, that love at least is not altogether indifferent to the "peculiar little thread." Guyau seems to me to be right. It is love, rather than the desire for individual persistence, that is the great argument for immortality.

[2] Keats's conception of "soul-making," referred to at the end of Book II, Chapter X, helps to bring this out.

indeed, that nothing is thoroughly good in human life except what is achieved through choice and effort; and this implies that the better has to be preferred to the less good, and has to be brought into being through the removal of obstacles. We may try to think of a universe in which this would not be the case; but the effort seems clearly to result in the conception of a blank uniformity without interest. It is like the attempt to think of a visible world that is all white, without any diversity of colour. If life is like a dome of many-coloured glass that stains the radiance of eternity, it would seem, nevertheless, that such a staining is necessary for the realization of perfect beauty. To believe otherwise is to believe something that we cannot really make intelligible to ourselves.

This seems to apply even to what is called moral evil. Such a character as Falstaff is certainly not very admirable; yet we can hardly help feeling that we could better spare a better man. Even such characters as Reineke Fuchs, Mephistopheles, Iago, Lady Macbeth, Caliban, or Milton's Satan,[1] are not without a certain attractiveness, not merely as conditions for the activity of others, but even in themselves. We dislike and disapprove of the mischief that they inflict on others, and generally, in the end, on themselves; but we have a certain regard for their persistence in the pursuit of what they value;[2] and we recognize that their attitude of antagonism to certain things or persons, however objectionable it may be, is not wholly unnatural or unreasonable. They are opposed to things that are better than themselves, but their opposition is due to the fact that these things appear to them—sometimes rightly—as being not wholly good. The kind of mischievousness which the Germans call *Schadenfreude* may thus have a certain justification. Bishop Butler denied that there is any such thing as pure malevolence; and this is probably true in the sense that antagonism to

[1] The attractive element in this case is, of course, better represented in Prometheus; but the desire for liberty and the courage to claim it attract us even in what is otherwise a bad cause.

[2] Kant said that the skill and courage of a villain only make him more hateful. I doubt this. They make him more terrible; but we may feel of him, as Renan said of Cæsar Borgia, that he is "beautiful as a tempest or as an abyss."

what is good is always combined with some half-conscious conviction that it is not good enough. As Mr. Wells says, "When some vile or atrocious thing is done out of envy or malice, that envy or malice has in it always a genuine condemnation of the hated thing as an unrighteous thing." Even the Will to Power,[1] though far inferior to the Will to Good, would seem at least to be better than the dull acquiescence in evil conditions as they are—"the unlit lamp and the ungirt loin"; and, even when it is pushed to its most objectionable extreme, it has a certain significance in calling attention to the boundless demands that the human consciousness makes upon the world. Carlyle's Shoeblack would not be satisfied with less than the whole Universe;[2] and, though we recognize that it is a serious error to try to secure this, or anything approximating to this, at once and by direct violence against others; yet we have to acknowledge, at the same time, that, as human beings, we do aim at the ultimate conquest of everything that stands in the way of our complete realization. Even the definite opposition to conventional morality often has a partial justification in the limitations and insincerities of that morality. Charles Lamb urged that our enjoyment of some questionable forms of dramatic art is due to the need of some relief from the limitations by which we are commonly bound by social conventions. We may recognize the necessity and importance of these limitations; but it is right that we should feel also that, so far as they are merely external restraints, they do not wholly bind our souls. "Anything treated as sacred," said Stirner,[3] "is a tie, a fetter."

In recognizing the general rightness and importance of the rules of grammar, a vigorous writer may sometimes wish to show that he can, when he chooses, be *super grammaticam*; and the sense of being *super moralitatem* (so far

[1] With this may be compared Hobbes' statement of the natural rights of man: "Every man by nature hath right to all things, i.e. to do whatsoever he listeth to whom he listeth, to possess, use, and enjoy all things he will and can" (*De cive*, i, 10). It is now generally recognized that there is no real ground for the affirmation of any such "natural rights." See Ritchie's *Natural Rights*. But the human claim to freedom tends to express itself in these extravagant forms, until it has learned the necessity for self-limitation. And to strive against limitations that are merely external is, in itself, a natural expression of the untutored longing for free development, which is intrinsically good.

[2] *The Ego and His Own*, p. 283.

as morality is merely conventional) may have a similar fascination. Kipling's "Where there ain't no ten commandments" sets both grammar and morality at defiance. The charm of wild animal life—the "call of the wild," as Jack London called it—seems to depend largely on a similar demand for freedom. Some of Wagner's music expresses the same kind of longing. But perhaps it is seen in its most intense form in such writers as Walt Whitman and Nietzsche, the democratic and the aristocratic apostles of this unchartered liberty. In "breaking the old tables," Nietzsche conceived that he was winning a new freedom for posterity. "Oh! my brothers! when I bade you break in pieces the good and the tables of the good, then first did I put man aboard to sail his high sea. . . . The sea is in storm. Everything is in the sea. Up! up! ye old seamen's hearts. *Fatherland*, say ye? *Our* helm is set thitherwards where is our children's land. Thither, stormier than the sea, storms our great longing."[1] The better is the enemy of the good: the longing for the infinite and perfect makes all actual achievement appear mean and squalid. Whitman's attitude, of course, is much finer and saner. He does not oppose the imperfect good, but rather seeks to appreciate the element of good in evil. "The soul," he says,[2]

> In spiral results by long detours (as a much-tacking ship upon the sea),
> For it the partial to the permanent flowing,
> For it the real to the ideal tends.
> For it the mystic evolution,
> Not the right only justified, but what we call evil also justified.

I am not urging that any of these things are to be commended. The deeper religious teachers have generally taught that, in seeking to transcend the lower types of moral life—"the righteousness of the Scribes and Pharisees"—they were not destroying the law, but giving it a fresh interpretation. They have recognised also that, though there is good in evil,

[1] *Thus Spoke Zarathustra*. See the account of Nietzsche's attitude in W. Wallace's *Lectures and Essays on Natural Theology and Ethics*. Nietzsche's leading ideas, however (except on the transvaluation of values) appear to have been taken from Sumner's *Folkways* and not Superman. His whole position is very sympathetically expounded in Dr. Wild's *Philosophy of Nietzsche*.

[2] *Song of the Universal*. It is right to remember, however, that a little later in the same Song it is stated that "Only the good is universal."

yet the evil has to be fought against. Though in reflection we may stand above good and evil, yet in action we have to choose the one and reject the other. And we have to learn further that self-mastery is the prime requisite for any valuable mastery of the world. But a vein of paradox and extravagance is not without its uses. Many weapons are needed for the shaving of Shagpat.[1]

However, I have been referring so far to the more romantic forms of evil, which appear to be always based on some impulse that is more or less good and attractive in itself. The more common forms of evil have certainly not much charm. But, just for that reason, they present less of a problem. They are more purely negative; and, once we recognize that perfection has to be attained through a process, we must expect that at many points it will be sadly deficient.[2]

Thus it would seem that it may still be the case that, in the gradual substitution of the better for the worse, there may be the accomplishment of the highest good that can really be made intelligible. Goodness, like truth, may be most valued when it has to be won. If it be true that it is the glory of God to conceal a matter, and the glory of a king to find it out, it may also be true that the glory of God would be incomplete without the glory of the king. Even in thinking of the best kind of world that we can conceive, it does not seem possible to think of it as absolutely excluding ignorance, pain, and temptation; but as containing them only to be removed and triumphed over. What is thus suggested is that truth, beauty, and goodness may be essentially imperfect apart from their achievement. There may be no real and satisfying good except in making good. We have to endeavour to make it, but this endeavour may be an essential part of what is made.

[1] I take this to be Meredith's symbol for the contest against the exuberant overgrowths of custom and convention. The human spirit is continually outgrowing its conventions and organizations; but the revolt against them is not always wise. Established institutions have generally some rational basis.

[2] Hegel's treatment of the distinction between Innocence and Virtue throws much light on the problem that is here referred to. See, on this subject, McTaggart's *Hegelian Cosmology*, chapter vi. Compare also the very striking passages in William James's *Talks to Teachers*, quoted by Dr. Bosanquet in *The Value and Destiny of the Individual*, pp. 322–5, with his comments.

6. *Tentative Solutions.*—The solutions that have now been suggested for the three problems under consideration cannot be regarded as more than tentative. They are a *permissio intellectus*, in the language of Bacon—a licence to gather early grapes, perhaps still a little sour. But it may be well to try to sum up briefly what the solutions seem to amount to. The apparent contingency, change, and evil that we find in the Universe as we know it, might all be regarded as compatible with the reality of a perfect order, if we could suppose that the whole is in its essence spiritual, that it realizes itself through a process of change, involving in its initial stages a certain lack of order and consequent appearance of contingency and evil, but advancing by degrees to a complete unity, in which the process is eternally and consciously retained. We have not as yet, however, succeeded in showing that such a view can be clearly conceived and fully thought out. In order to do this, there are some difficulties that have still to be met. The chief problem that remains is the question whether, and in what sense, the whole thus conceived is to be thought of as finite or as infinite. There would seem to be considerable difficulties on either view. If it is finite, its limitation would appear to imply a certain defect, which it would not be easy to account for. If it is infinite, it is difficult to see how the perfection can ever be said to be actually achieved. In order to deal with these difficulties, it is necessary to consider the whole question of the meaning of finitude and infinity.

NOTE ON THE PROBLEM OF IMMORTALITY

As we have now had occasion to refer to the problem of human immortality at several points, it seems desirable to offer here some general observations on that subject, which could not well find a place in the text.

There are two questions that it is important to distinguish—viz. that of the persistence of an individual personality after bodily death, and that of the eternity of conscious life. The latter problem is the one that falls more particularly within the scope of philosophy. The former is, in the main, an empirical question; though it involves the more philosophical problem of the relation between

the conscious subject and the bodily organism with which he works.

Now, with regard to the relation between the conscious life and its body, we have already noticed that it seems to be a very intimate one ; so intimate that it is difficult to think of the connection as being dissolved without the loss of a large part of the content of the human personality.[1] On the other hand, there does not appear to be any definite ground for denying the possibility of the transference of the conscious life from one bodily organism to another, or even of its continued existence without embodiment. It may be true, for instance, as some have supposed, that conscious life is not primarily or essentially connected with the brain, or with any other visible part of the bodily organism, but rather with some more subtle mode of existence, which can be detached from the physical organism without serious loss, and can still retain a large part of what is essential to the personality of the individual. This appears to be what is properly understood by the term "Animism." According to this view,[2] there is a "soul," which is detachable from the body, and distinguishable from matter, though having position in space, power of movement, and perhaps some other qualities that belong also to what we call material existence.[3] This soul might leave the body, just as the inhabitants of a particular country may emigrate to another. And, just as the Jews, though separated from the country to which they once belonged, and in which many of their institutions had their seat, have yet been able to retain much of what was most essential in their national life ; so the soul of the individual might carry to other organisms a large part of his essential personality. Whether this is actually the case or not, seems to be a question that can only be decided on empirical evidence. It may be compared to the question whether the British Empire will survive the present war ; a kind of question to which no answer of a purely philosophical nature can reasonably be expected. Evidence bearing upon the question, as we have already to some extent noticed, has been brought forward in a variety of ways. There has long been prevalent in the East

[1] Ribot even states that the physical organism is to be regarded as the principle of "individuation." See his *Diseases of Personality*, p. 148. But this appears to be an exaggeration. Plato, in the *Timæus*, suggests a similar view.

[2] On the interpretation and defence of Animism, see McDougall's *Body and Mind*.

[3] It might of course be contended that individual self-conscious spirits could exist without any local habitation at all. The chief grounds for postulating such habitations appear to be (1) that in our actual experience spirits appear always to be localized ; (2) that there are subconscious as well as conscious aspects in the life of spirit ; and that it seems necessary to refer both these aspects to some persistent centre.

a theory of successive incarnations; and the evidence adduced in support of it is that of individual memory. This can only be directly tested by the person who experiences it; though it may be to some extent verified by its correspondence with what is remembered by others. In the West there are a few who profess to be in possession of evidence of a similar kind. But perhaps it is more common on this side of the world to appeal to evidence of survival supplied by special communications through sensitive "mediums." This evidence is of a kind that can be tested in a somewhat more public way; and a good deal of it has now been made public. The difficulty in the way of testing and interpreting both these kinds of evidence—apart from the possibilities of actual fraud, conscious or unconscious—is mainly due to our ignorance of the secret or "subconscious" workings of the mind, and of the degree in which it is possible for it to be affected in other ways than through the senses. There is now a good deal of evidence in support of what are called "telepathy" and "psychometry"; but it would, I believe, be generally admitted that the full extent of these sources of knowledge has not yet been gauged.[1] Hence it is not easy to determine how much of the information that appears to be derived from other sources than those of the senses is to be referred to one or other of these channels, and how much must be supposed to be derived more directly from souls that have survived the death of the body.[2] It does not appear that any general philosophical principles can enable us to anticipate the results of the empirical evidence that is being sought through such channels; and it would seem that the right attitude for those who have no direct evidence of their own is that of suspense of judgment.[3]

Whatever may be the value of the knowledge that may thus be reached, however, it seems clear that it throws no direct light on the problem of immortality, in the sense of the eternity of

[1] There does not appear to be any *a priori* ground for questioning the possibility of such abnormal powers. If normal eyesight were confined to a few individuals, the possibility of becoming aware of the existence of remote stars would probably seem as incredible to most of us as any of these abnormal manifestations. Still, a little scepticism is nearly always wholesome.

[2] It has often been noted, as a suspicious circumstance in connection with such evidence, that the information received by particular inquirers is nearly always in accordance with the special opinions that were already held by these inquirers. Most of it also is so trivial and confused that one can hardly attach much importance to it. It gives the impression of more or less clever guessing.

[3] The most thorough treatment of the more empirical considerations bearing on this whole subject is to be found in the book by F. W. H. Myers on *Human Personality, and its Survival of Bodily Death.*

conscious life.[1] We know that a people may survive the loss of its country ; but no one, I presume, supposes that the Jews or any other people will exist as a people for ever. So the soul, even if it survives many incarnations, may not exist eternally.[2] Now, this question is one that lies rather more definitely within the scope of philosophy. We may at least hope that the meaning of eternity may be made clear by philosophical discussion ; and reflection on the general significance of human life may perhaps furnish us with a probable view of the kind of persistence that may most appropriately be ascribed to it. The various considerations that have been brought forward in several of the preceding chapters relate mainly to this question ; and it will be somewhat further dealt with in the sequel, as an aspect of the general problems of infinity and eternity. It is evident, however, that this question is somewhat intimately bound up with the one that was previously referred to. If conscious life does not survive the death of the organism, there can hardly be any question of its eternity, except in the sense that one conscious being (such as Plato) may in some way carry on the life of another (such as Socrates), and that there may thus be a continuous and perhaps unending series in this and other worlds. On the other hand, even if a conscious being does survive the death of the body, he may not be immortal. There may, for instance—as many in the East suppose—be a time at which the reincarnations cease : and it may be that conscious life also ceases when that stage is reached, or at some subsequent stage. Or it may be that there is a stage at which the individual personality, as such, ceases to exist, and becomes merged in some larger whole.

The purely philosophical grounds on which any of these views may be defended, must be intimately connected with the general conception of the universe that is ultimately reached. A definitely singularistic view, such as that of Parmenides or Spinoza, would hardly seem to leave any room for the perpetuation of individual personality [3] as such. On the other hand, a definitely pluralistic view, such as that of William James,[4] would seem to involve such

[1] Count Keyserling, in his *Unsterblichkeit*, makes a sharp antithesis between the two things. "Das Wesen," he says (p. 280), "das Ich ist mit der begrenzten Person nicht identisch" ; and he even contends (p. 282) that "the desire for eternal life is at bottom the same as the desire for temporal death." But this seems to turn on a false antithesis between time and eternity.

[2] Compare McTaggart's *Dogmas of Religion*, § 82.

[3] According to Spinoza, the mind is the counterpart of the body, and could hardly be supposed to survive it.

[4] See his little volume on *Human Immortality*, and compare Howison's *Limits of Evolution*, pp. 279–312.

perpetuation; and this perhaps applies also to such a modified or tentative pluralism as that of Dr. Ward; and also to a theory of "fundamental differentiations of the absolute," such as is maintained by Dr. McTaggart.

When theories of reality cannot be definitely characterized as singularistic or pluralistic, it becomes difficult to determine what attitude towards personal immortality is properly to be associated with them; and writers who hold such theories generally express themselves with a good deal of hesitation on the subject. Lotze, for instance, states (*Metaphysics*, Book III, chapter i) that "the question of the immortality of the soul does not belong to Metaphysic. We have no other principle for deciding it beyond the general idealistic conviction, that every created thing will continue, if and so long as its continuance belongs to the meaning of the world; that everything will pass away which had its authorized place only in a transitory phase of the world's course. That this principle admits of no further application in human hands hardly needs to be mentioned. We certainly do not know the merits which may give to one existence a claim to eternity, nor the defects which deny it to another." The statement of Edward Caird[1] is somewhat similarly guarded. The axiom of Professor Höffding, that no value perishes out of the world, might seem to carry us a little farther; but, even if all values are preserved, some of them may have to be transmuted. Plato appears to set forth definite arguments in support of immortality; but there remains some doubt, whether the aspect of the soul which he characterizes as eternal can properly be regarded as individual. A similar doubt suggests itself with regard to the doctrine of the Vedantists.[2] Bradley and Bosanquet appear to point pretty definitely to a negative conclusion; and perhaps the view of Hegel was similar to theirs. Green's statement is certainly more positive in form;[3] but it is uncertain

[1] In the lecture on Immortality in his *Lay Sermons*, especially p. 281. "Direct proof of immortality," he says, "cannot be had, or not in a convincing form, but . . . if we think of the world as a manifestation of a rational and moral principle . . . we must regard it as existing for the realization of that which is best and highest; and that best and highest we can hardly conceive as anything but the training and development of immortal spirits." Compare also Taylor's *Elements of Metaphysics*, p. 357.

[2] See Deussen's *Elements of Metaphysics*, p. 337.

[3] The following is his most definite statement (*Prolegomena to Ethics*, § 189): "Although any other capacity may be of a kind which, having done its work in contributing to the attainment of such a state of being [viz. a state which is not a series in time], passes away in the process of its attainment—as the particular capacities of myriads of animals, their function fulfilled, pass away every hour—yet a capacity consisting in a self-conscious personality cannot be supposed so to pass away. It partakes of the nature of the eternal. . . . We cannot believe

whether his doctrine of the "eternal consciousness" as owing its expression in time to its association with a physical organism ought not to lead to a different conclusion.[1] Kant's conception of an endless progress which never reaches its goal, but which may be regarded, from the point of view of eternity, as having reached it, is one that cannot easily be made intelligible.

It certainly seems that any view of the universe as a perfect cosmos must involve some conception of the eternity of the individual life as an aspect of the life of such a perfect whole. And it seems natural to interpret this as implying that the life of the individual is sufficiently prolonged to enable him to realize its significance within the whole. But this might not mean an indefinite continuance. There might come a time in which the realization of the individual would involve a transcendence of the limitations that distinguish him from others. Some further light may be thrown on this by the subsequent consideration of the conception of a cosmos and the meaning of eternity; but on the whole it seems true that purely philosophical considerations do not enable us to furnish any quite definite solution of the problem. If we are entitled to take an optimistic view of the universe, we must take an optimistic view on this particular question; but it is not easy to determine what solution of it would really be the best; and, as Hume said,[2] "all doctrines are to be suspected which are favoured by our passions." The views that our desires lead us to adopt are generally too limited in their outlook to be finally decisive, not merely as to what we are entitled to believe, but even

in there being a real fulfilment of such a capacity in an end which should involve its extinction. . . . On the whole, our conclusion must be that, great as are the difficulties which beset the idea of human development when applied to the facts of life, we do not escape from them, but empty the idea of all real meaning, if we suppose the development to be one in the attainment of which persons —agents who are ends to themselves—are extinguished, or one which is other than a state of self-conscious being, or one in which that reconciliation of the claims of persons, as each at once a means to the good of the other and an end to himself, already partially achieved in the higher forms of human society, is otherwise than completed." The difficulty here is to reconcile the idea of a development in time with that of an end which is eternal. For further reference to this difficulty, see Chapter IV, § 9, and the Note at the end of that chapter.

[1] "In the growth of our experience, in the process of learning to know the world, an animal organism, which has its history in time, gradually becomes the vehicle of an eternally complete consciousness. What we call our mental history is not a history of this consciousness, which in itself can have no history, but a history of the process by which the animal organism becomes its vehicle" (*Ibid.* § 67). It is difficult to avoid interpreting this as meaning that it is the evanescent animal organism that differentiates one eternal consciousness from another.

[2] Essay on *Immortality*.

as to what we ought to hope, i.e. what is really desirable.[1] What we tend to desire, in general, is something that contrasts with what we happen to have suffered.

> That Paradise the Arab dreams,
> Is far less sand and more fresh streams.

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[1] Mr. G. L. Dickinson's lecture—*Is Immortality Desirable?*—may be referred to with advantage in this connection. Even Professor Pringle-Pattison, with all his emphasis on personality, recognizes (*Idea of God*, p. 45) that "personal immortality . . . is not an absolute necessity, in the sense that without it the world becomes a sheer irrationality." I may add here that the little book on *The Conception of Immortality*, by Josiah Royce, contains one of the most carefully balanced statements on the whole subject. The view to which he is led is that of the persistence of individuality, but an individuality that is not to be simply identified with that of a finite human person. His doctrine is thus somewhat similar to that of Count Keyserling, but does not involve so sharp an antithesis between the eternal individuality and the life of the transient person. But his view is dependent on a peculiar theory of individuality, which cannot be here discussed. On the whole, it seems clear that a definite theory of personal immortality cannot be established on purely philosophical grounds. With grounds of a more empirical character we are not specially concerned.

CHAPTER III

THE FINITE AND THE INFINITE [1]

1. *General Statement.*—The conception of Infinity presents itself in philosophy primarily as a mode of escape from the difficulties involved in the existence of finite things. It was used in this way, more particularly, by the Cartesians. When any problem was too hard for them (such as the interaction of Mind and Body), they took refuge in the Infinite. Descartes himself led the way by contending that the conception of the Infinite is essentially prior to that of the Finite; and this doctrine was more fully developed by Spinoza. In general, this view was illustrated by means of spatial conceptions. A particular extent of Space, it was urged, can only be definitely conceived by being thought of as cut off from a larger whole, which, in the end, cannot be supposed to be itself limited. It must be regarded as being infinite in its kind; and this way of thinking of it leads very naturally to the supposition that other things also are to be supposed to be infinite in their kind. A stretch of time may be regarded as cut off from the infinite time, and a process of thought from the infinite thought. This way of thinking leads pretty directly to the doctrine that all determination is, in its essence, negation. To say that a thing is blue, is to say that it is not of any other colour. To say that a man has particular characteristics, is to say that he lacks the other characteristics that might belong to a human being. Thus any definite apprehension of a finite being implies the conception of the infinite from which it is distinguished. The limited implies the unlimited: the imperfect implies the perfect. Now, if we consider the three types of instances

[1] Considerable parts of this chapter are reproduced from the article "Infinity" in the *Encyclopædia of Religion and Ethics*.

that have here been referred to—space, colour, character—it seems clear that there are great differences between them. In the case of spatial extent, the portion that is divided off from the rest—the extent of a country, for instance—is definitely bounded, and we can clearly understand its limitations only by taking note of what is beyond the boundary; and, however far we may go in the extension of its bounds (unless we are dealing with a whole, such as the surface of our earth, which is itself definitely bounded), we can always think of some further extent beyond the boundary that we have reached. The whole, in this case, has to be thought of as being endless, or without limit, and is thus to be regarded as being, in the strictest sense, infinite. The colour blue, on the other hand, can be apprehended without definite reference to any other colour, though it may be true that its special character cannot be distinctly noted without distinguishing it from other colours. At any rate, it is not, in any definite way, bounded by the others; nor is there any necessity to assume that there is an endless series of other possible colours. Blue is, however, a limited colour; and, when we regard it from the point of view of colour in general, it may be said to be incomplete—i.e. it is not the whole of colour. It is not necessarily imperfect. A blue sky would not be made more perfect by the addition of all the hues of the rainbow. The character of a person, again, has a similar incompleteness. Julius Cæsar had a certain incompleteness, in so far as he lacked the characteristics of Plato; and Plato, in so far as he lacked those of Julius Cæsar. Here also the one character can hardly be regarded as being bounded by the other. But it may be said that they are both imperfect, when we compare them with an ideal human type. They fall short of a standard that we have before our minds. Thus it would seem that there are three distinguishable sorts of finitude—the bounded, the incomplete, and the imperfect; and three corresponding types of infinity—the boundless, the complete, and the perfect. It is necessary to bear in mind also the distinction between the indefinite and the infinite. The indefinite is not actually boundless, but is that to which no precise limits can be assigned. That all these conceptions are distinct seems clear.

In some cases, indeed, they are somewhat sharply opposed to one another. The boundless means almost that which cannot be completed (though sometimes what can be represented as boundless can also, from a different point of view, be represented as complete). What is complete can hardly be boundless, and need not be perfect. The visible circumference of a circle is complete when it is fully filled in; but it is not infinitely extended, nor does it consist of an infinite number of visible parts; and it may not be perfect —its curvature may not be strictly uniform. Or, to take a more trivial instance, this book will be complete when all the problems included in its scope have been dealt with; but I trust it will not be endless, and I know that it will be very imperfect. Even what is perfect need not perhaps be complete in itself. A perfect hero may be complete only in his self-renunciation.

These distinctions are important, not merely on the general ground that what is different should be distinguished, but on the more special ground that they are liable to be confounded. Without bearing them in mind, it is hardly possible to understand the very different ways in which infinity has been regarded at different times and by different people. It seems true to say, in general, that the ancient Greeks tended to associate perfection with what is complete in itself, whereas in modern times (and also among Oriental peoples) the perfect is rather thought of as pointing beyond itself or as found in an ideal that is almost, if not quite, unattainable. The bounded "sphere" of Parmenides may be contrasted in this way with the "Being absolutely infinite" of Spinoza; and the High-minded Man of Aristotle with the Buddha or with the Superman of recent speculation.

There is, however, one thing that these three conceptions of infinity may be said to have in common—viz. that each of them is, in a certain way, implied in the determination of the finite that is its correlative—though implied in somewhat different ways in the three cases. This is, on the whole, most clearly apparent in the case of completeness. We can hardly be sure that anything is incomplete without knowing, in some degree, what is required to complete it. We may no doubt be in error in the supposition that we

make. The Roc's egg was not really wanted to complete Aladdin's palace; and some hypotheses that have been put forward as to what is needed for a complete view of the Universe may be equally at fault. Again, we may only know some of the things that are missing. We may know that an alliance of free peoples is incomplete because America has not joined it, without necessarily thinking of any other deficiencies. But at least some knowledge or surmise of what is missing seems to be required to determine anything as incomplete. To determine anything as bounded, it would appear that a much less definite apprehension of what is beyond the boundary is needed; nor is it necessary to know that what is beyond the boundary is itself unbounded. In the determination of anything as imperfect, the thought of a definite standard is more distinctly present; but here also what is actually contained in the standard may be only somewhat vaguely apprehended. We may doubt without any clear apprehension of what would constitute certainty; and we may surmise a more perfect wisdom, goodness, or beauty, without any clear apprehension of what it would consist in.

In view of all this, the Cartesian contention that the thought of the infinite is essentially prior to that of the finite can only be accepted with considerable qualification. This, indeed, became pretty fully apparent in the development of the Cartesian philosophy itself. The conception of the Infinite with which Descartes sought to begin was essentially that of the perfect: it was the Platonic standard or type of Good. But this tended to be transformed into the conception of the boundless, being assimilated to the thought of space, and so became lost in the emptiness of mere extension. When an attempt was made to give it a more definite content, it passed into the conception of completeness. God came to be conceived as the sum of all positive reality—a sort of universal storehouse in which every commodity is to be obtained.

These considerations may serve to indicate what a slippery conception that of Infinity is; and, having made this general statement about it, we may now proceed to inquire into the exact sense in which the terms Finite and Infinite may be applied to particular aspects of knowledge and reality. The

inquiry is a difficult one; but, even if we fail to deal with it thoroughly, we may at least hope to get some light on the conception of perfection, which is, for our purpose, the most important of the senses in which Infinity may be understood.

2. *The Incompleteness of Universals.*—Plato, as we have already had occasion to note, tried to think of all the most fundamental Universals as forming a connected system, bound together by the Form of Good. Hegel, more greatly daring, set forth the system of such Universals in a definite arrangement, starting from simple Being and proceeding upwards to the Absolute Idea. We have not ventured here, with any thoroughness, either to defend or to criticize such an attempt. It is evident, however, that, if it could be successfully worked out, all the Universals—i.e. all the primary conceptions, all those that are most ultimate and fundamental—could be regarded as forming a complete order. Universals of the second order, or those that stand still lower in the scale, might still remain to be accounted for. Such Universals as Blue or Tiger would not have a place in such a scheme. In any case, until a scheme of this sort is finally developed, it would seem that we must regard most Universals at least as standing apart—like "cockle-shells all in a row"—each separate and single, without definite connection with the rest. These Universals could hardly be said to be bounded by one another; nor would they necessarily be regarded as imperfect. Each might be said to be perfect of its kind and bounded by nothing. In these two senses they might be regarded as infinite. But they would be incomplete. They would be parts or aspects of a more comprehensive whole, even if that whole could not be treated as an intelligible system. In the next chapter we shall have to discuss the possibility of treating the whole as an intelligible system. If it can be so treated, the supreme Universal—the Form of Good, the Absolute Idea, the thought of Perfection, the *Causa Sui*, or however else it may be described—would have completeness; but all other Universals, considered separately, would have to be regarded as incomplete and, in that sense, finite.

3. *The Indefiniteness of Instances.*—Universals, however, both those that are primary and fundamental and those that are of the second or lower orders, admit, in general, of an indefinite number of instances. The instances cannot properly—at least in most cases—be described as infinite. They may be limited in a variety of ways. There could hardly be an infinite number of tigers or planets, or even of grains of sand; and it may be doubted whether there could be an infinite number of blue things or of causal sequences. But certainly it would be difficult to assign definite limitations to any of these. The possible number of tigers might perhaps be determined if we could give an exact statement of the conditions under which that particular form of life can be maintained, and could ascertain the structure and duration of the planetary systems sufficiently to know how far the necessary conditions could be provided. Appropriate data might enable us to limit the instances of other Universals in a similar way. Perhaps such a restriction could hardly be imposed on Number; yet, even with regard to that, it does not appear that we are entitled to maintain that there are, or even may be, an infinite number of objects that can be counted. Hence, in general, we can only describe the instances of Universals as being indefinite in number, so far as our knowledge goes.

4. *The Infinity of Orders.*—In the case of definite orders, however, it would seem that we can predicate boundlessness in a rather more definite sense. When we have an order, constituted by the continuous application of a definite mode of relationship, we have a series that may be described as at least potentially infinite. This applies to numerical series, such as 2, 4, 8, etc., to various mathematical formulæ, such as n, n^2, n^3, etc., to degrees, such as those of heat, to causal sequences, and so forth. It is in connection with these that the most definite problems relating to Infinity arise; and we shall have to consider them in a somewhat detailed way. All such cases are susceptible, in some degree, of mathematical treatment. Sometimes, however, the attempt to apply mathematical methods to them is apt to be misleading, partly owing to the presence of qualitative differ-

ences, and partly owing to the fact that the relationship can seldom be assumed to be applicable beyond certain limits. Abstractly regarded, such series may be characterized as infinite ; but, in the concrete, they are, generally speaking, only indefinite. This, however, will have to be brought out in detail as we proceed.

5. *The Imperfection of Individuals.*—Plato held that the existent is never quite adequate to the eternally real—i.e. to the ideal Type. Whether this must necessarily be the case, we need not here consider. But it seems clear at least that, if we regard the general conception of evolution as applicable to living forms, we are led to think of them as approximating more or less to a certain perfection to which none of them quite attains. The recognition of higher and lower types implies a possible highest. It is chiefly in this sense that we commonly think of living beings, and of particular aspects of living beings, as finite. In particular, we think of human knowledge, goodness, power, etc., as finite ; and, in so thinking, imply an ideal standard. This also we shall have to consider more definitely as we proceed.

6. *Mathematical Infinity.*—In dealing with the mathematical aspects of Infinity, it may be well to explain at once that it is not our object either to explain or to criticize the use that has been made of the conception of Infinity in mathematical investigations either in earlier or in more recent times. My knowledge of mathematics is not sufficient for such a discussion ; nor, even if it were, would such a discussion have much relevance to our present purpose. Philosophy is concerned with the fundamental conceptions that are used in the special sciences ; but, unless a writer on philosophy happens to be also a specialist in some particular science, it is seldom wise for him to criticize the way in which the conceptions are used in the detailed work of the sciences. So long as mathematicians are dealing with what lies strictly within their province, they are entitled to use conceptions in the way that they find best for the development of their science. It is only when they apply their conceptions to objects that do not fall strictly within their

province that they become open to outside criticism. Hence it will be well to begin with some general observations on the proper province of the mathematician.

Pure Mathematics would seem clearly to be an abstract science, concerned with certain fundamental orders, especially those of number and extensive magnitude. In a more indirect way, it may concern itself with all orders, since number would seem to be applicable to them. This fact gives to the science a certain universality, which is apt to lead to somewhat exaggerated claims. The Pythagoreans tried to interpret everything by means of number; and, in more modern times, the Cartesians expected too much from the application of mathematical methods. Being concerned with the implications of fundamental orders, the science is closely related to that of Logic; but Logic deals with implications in a wider and more general way.[1]

Mathematical problems, however, are seldom altogether pure. The mathematician seeks, in general, to apply what he discovers as implications of pure orders to existing things. Now, existing things are complexes; and what is strictly true of pure orders is seldom true of existing things without some qualification. Things can often be treated as units; but it is seldom quite correct to treat them as absolutely homogeneous units. For certain purposes their differences may be regarded as negligible; and it is partly in dealing with such negligible differences that the mathematical conception of Infinity (especially of the infinitely little) has an important place. Even such a statement as that $2 + 2 = 4$ may become highly misleading when applied to combinations of existing things. In war, for instance, two separate sets of two regiments are not equal to four in combination. So much, I suppose, would be generally admitted. What we have now to consider is certain ways in which the conception of Infinity may be legitimately used in pure Mathematics, with special reference to the legitimacy of its application to existing things.

The simplest and most obvious case is found in the series of cardinal numbers—0, 1, 2, 3, etc. This is formed by the addition of unity at each successive step; and it is

[1] See above, Book I, at the end of Chapter VI.

evident that this is a process that may be carried on without limit. If we think of it with reference to the act of some individual mind in going through the series, we have of course to recognize that such a mind could not go on without end; but we cannot set any definite limit to the process even from this point of view. However large the number might be that an individual had thought of, we may still suppose that he could add one more. The series, from this point of view, is indefinitely extensible. When, however, we regard the series, not as something successively apprehended by an individual mind, but rather as an objective order, involved in the nature of number as such, we may then say, not merely that it is indefinitely extensible, but that it is an infinite whole. Though endless in its extent, it may yet be regarded as complete and self-contained. All the numbers are involved in the structure of the system.

But now we may take another numerical series—0, 2, 4, 6, etc. This is formed by the successive addition of two, instead of one; and each member, after the first, is twice as great as the corresponding member in the previous series. This series also is infinite; but it is a different infinity from the other. And reflection on these cases readily enables us to see that the order of numbers is not merely in itself infinite, but admits of an infinite number of infinite series within it, all different from one another.

This is true, even if we confine our attention to positive integers. But the number of such series is further increased by including fractions. Take the series 1, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, etc. This can be indefinitely extended; and, regarded as an objective order, it may be said to be actually infinite. Moreover, each member of this series is smaller than the one before it; and, if we pursued the series indefinitely, the last members that we reached would become extremely small. Hence, regarding it as an objective order, we may say that it leads to the infinitely little. Further, taking this series as a whole, and adding the successive members together, the result is 2; or, from the point of view of an individual reckoning up the successive members, it can be made to differ from 2 by a fraction that is indefinitely small.

The case of decimals is somewhat similar. The expres-

sion ·3333 . . . may be carried forward indefinitely, and its difference from $\frac{1}{3}$ becomes less and less as we proceed; so that, regarding it as a total infinite order, we may say that it is equivalent to $\frac{1}{3}$.

Now, similar cases may be found in any definite order—e.g. algebraical expressions (such as n, n^2, $n3$, etc.), side-by-side-ness in space, before and after in time, degrees of brightness or other qualities, the division of a whole into homogeneous parts, etc., so long as these are regarded as pure orders. But the question for us now is, How far are such considerations applicable to existing things, as distinguished from the orders that enter into the structure of existing things?

The general answer to this would seem to be that, when we are considering existing things to which particular orders are applicable (i.e. things that can be numbered, that can occupy space, that can succeed each other, that can have degrees, etc.), we are not entitled to speak of infinite extent, but only of indefinite extension, and not always of that.

Human beings, for instance, can be numbered; and we can assign no definite limits to the number of such beings that may have existed in the past and that may exist in the future. We have no reason, however, for saying that the number ever will be or can be infinite; and there are certainly some grounds (I think, demonstrative grounds) for maintaining the contrary. Metallic bodies, again, can be divided into parts that are, roughly speaking, homogeneous with the whole; and it is difficult to set definite limits to the extent to which such subdivision might be carried out in particular cases; but it is known, with a considerable degree of certainty, that we should eventually arrive at parts which were not homogeneous with the whole, and which could not be further divided into parts homogeneous with themselves. In like manner, degree is applicable to the intensities of sounds and colours; and there is no ground, of a formal kind, for setting limits to the degree of intensity that might be reached. But, here also, it is known that there are definite limits to the intensities of sounds and colours that can be apprehended by particular organic beings; and there are no grounds for supposing that, under any actual

conditions, the intensities could ever be increased beyond certain limits. Colours, again, may, with regard to their quality, be more or less light or dark; but nothing is lighter than a pure white or darker than a pure black; nor, between these limits, is there an infinite number of distinguishable shades of grey. Many illustrations of a similar kind might be given, in which a pure order, regarded simply as such, may be described as infinite, but in which particular objects to which the order may be applied are either definitely limited or, at the most, indefinitely extensible.

Some recent writers, of whom Josiah Royce was the most notable, have emphasized the fact that it is possible to formulate certain concrete problems in such a way that their solution would necessarily involve an infinite series.[1] It is easy to see that this is possible. A simple illustration would be that of a continuous poem so constructed that the last line of each stanza and the first line of the following one always rhymed with one another. Evidently such a poem could only be completed by an infinite number of stanzas. But it seems clear that this means that it could not be completed at all. However many stanzas might be added at either end, there would always be other two wanted, one before the first, and one after the last. Even in an infinite time (supposing that there can be an infinite time) such a problem could not be solved. The same seems to be true, in a somewhat different way, of other instances that have been suggested. Royce takes the case of an attempt to construct a complete map of a particular region—the region being that within which the map is contained. To complete the map, it would have to contain a representation of itself; and the map of the map would necessarily contain a map of the map of the map; and so on. It is evident that such a map also could never be completed; but in this case it would be brought to a definite end by reaching a point at which the representation would become so small as to be invisible. Two mirrors facing one another furnish

[1] Royce's views are most fully explained in the Appendix to the first volume of his book on *The World and the Individual*; and some applications of them are made in the second volume. His main ideas are adopted by Lord Haldane in *The Pathway to Reality*.

another illustration. The mirror A has an image of the mirror B, and in that image there is an image of A, which contains an image of B ; and so on. Here, I suppose, it would be the faintness of the images that would bring the series to an end.

Such problems are somewhat on a par with some of those in which the Megaric school of philosophers appear to have delighted. A Cretan, for instance, is supposed to affirm that Cretans never speak the truth. If this is true, it must be false, since it is uttered by a Cretan. The value of this puzzle seems to consist simply in showing that it is possible to make a statement that is intrinsically absurd [1]—a fact that might be illustrated in many ways. The supposed problems about infinity do not carry us much farther.

A rather more serious way in which we may be led to ascribe infinity to an existing thing may be found in the case of symbols. If x stands for a quite unknown object, we cannot tell how great it may be, or into how many parts it may be divided ; and, as the object for which it stands may be an arithmetical expression, it may be something that is infinitely great or infinitely divisible. We may even know that it does stand for some such object. But obviously in that case it is the object for which it stands to which infinity is ascribed. Similarly, a line drawn on a piece of paper may stand for the distance from one star to another, or even for some indefinitely great extent. It may even stand for an indefinite extent of time. Hence we may regard that for which it stands as indefinitely extended or indefinitely divided ; and we may ascribe these characteristics to the line, though, in itself, as a visible object, it may be very small and capable of subdivision into only a limited number of visible parts (even when viewed under a microscope).

These illustrations may help to bring out the general significance of Infinity as ascribed, on the one hand, to pure orders, and, on the other hand, to existing things. But we must now pass to the consideration of some problems in which special difficulties arise.

[1] See the remarks on this particular problem by Dr. Keynes (*Formal Logic*, 4th edition, pp. 457–8), and by Messrs. Whitehead and Russell (*Principia Mathematica*, vol. i, pp. 63–5).

7. *Spatial Infinity.*—Side-by-side-ness, regarded simply as an extensive order, seems clearly to be infinite. The considerations that lead us to this conclusion could hardly be put more vividly and convincingly than they were by Lucretius. "If for the moment all existing space be held to be bounded; supposing a man runs to its outside borders and stands on the utmost verge, and then throws a winged javelin: do you choose that it, when hurled with vigorous force, shall advance to the point to which it has been sent, and fly to a distance? or do you decide that something can get in its way and stop it? For you must admit and adopt one of the two suppositions; either of which shuts you out from all escape, and compels you to grant that the universe stretches without end. For, whether there is something to get in its way, and prevent its coming whither it was sent, and placing itself in the point intended; or whether it is carried forward; in either case, it has not started from the end."[1] But, while such reflections may convince us that we cannot think of any boundary to space as such, it is equally apparent that they do not entitle us to maintain that the world in space is infinitely extended. It might, and probably would, be physically impossible for the man whom Lucretius imagines to get to the extreme verge; and, even if he did get there, the structure of the material system might be such as to prevent the javelin from flying beyond a certain point. Though there is nothing in the form of space, as such, to interfere with his action, there may be something in the general conditions of the universe. I understand that there are scientific grounds for regarding the physical universe as being limited in space. In any case, the arguments against this that are stated by Kant in his first Antinomy do not appear to be convincing; or rather, they only show, what Kant mainly intended them to show, that space is not to be regarded as an existing thing, within which other things can be said to have positions. The positions of things are relative to other things. Where there are no things, there are no positions; just as, where there are no colours or sounds or other sensible quali-

[1] This is Munro's translation of the main part of the argument near the end of Book I of *De rerum natura* (lines 958–87).

ties, there are no intensities. Intensity and extension are infinite orders ;[1] but the objects that are determined by them are, at most, indefinitely extensible, and there may be grounds for denying even this. What the grounds are, in the case of spatial objects, it is not easy to state in a quite general way. They depend partly on empirical considerations, which have to be dealt with by the special sciences. There is, indeed, one more general ground that appears to me to be cogent ; but, as it applies to several other cases as well, it will be convenient to postpone the consideration of it for the present.

8. *Temporal Infinity.*—Time, like space, when regarded simply as the order of before and after, is unlimited ; but here also the events that occur in time may very well be limited in number. Kant urged against this that, if a beginning of the events in time is assumed, no reason can be assigned for beginning at one point rather than another. But this only shows, as in the case of space, that time is not to be thought of as an existing thing. Beforeness, as such, does not exist. We can only say that one thing comes before another ; and there is no reason why there should not be some occurrence that has no other before it—at least in the series of events that belong to our human universe—just as there is no letter before A, and no ordinal number before 1. The difficulty about causation has been dealt with in a previous chapter. If we interpret causation either teleologically or formally, there is no reason for regarding any occurrence as being caused by something else that occurs before it.

On the other hand, Kant's argument against an infinity of past events seems more cogent, though it did not carry conviction to Schopenhauer[2] or, in more recent times, to

[1] Mr. Russell, in *The Problems of Philosophy* (pp. 228–9), seems to represent Kant as having raised difficulties about the infinity of Space and Time as such. Surely this is seriously misleading. His difficulties were, at least primarily, about the objects and events in Space and Time. Space and Time, as mere forms, did not really trouble him.

[2] *The World as Will and Idea*, vol. ii, p. 108. Schopenhauer's argument is rather confused. He seems to appeal to the conception of recurrent cycles. It may be admitted that a solution can be found in this direction. But, before we seek a solution, we must recognize the difficulty.

William James [1] or Mr. Russell. The essential point of it is that to think of an infinite succession of events in the past is to think of an endless series as having been completed. Now, as we have seen, it is certainly possible to regard an infinite mathematical series as completed; but this is a very different thing from a series of events. In order to bring out Kant's point, it may be well to notice at this stage one of Mr. Russell's objections to it. "Kant," he says, "in his first antinomy, seems to hold that it is harder for the past to be infinite than for the future to be so, on the ground that the past is now completed, and that nothing infinite can be completed. It is very difficult to see how he can have imagined that there was any sense in this remark; but it seems probable that he was thinking of the infinite as the 'unended.' It is odd that he did not see that the future too has one end at the present, and is precisely on a level with the past" (*Our Knowledge of the External World*, pp. 179-80). This seems to me to show a very strange misunderstanding of Kant's contention. His point is not that the infinite series has an end, but that it has been completed. The arrow or javelin of Lucretius might help to make this clear. Many of the misunderstandings in philosophy are due to the fact that philosophical writers are not sufficiently in the habit of giving concrete illustrations of what they mean. If an arrow is shot out into space, it is easy to suppose that it might go on without stopping. This only means that the infinite series of its possible positions is not completed. But if an arrow were to arrive on our planet, it would not be so easy to suppose that it never started on its flight, and that it has passed through an infinite series of positions. *That* infinite series *has* been completed. It is surely very obvious that, in this respect, a past infinity is on a different footing from a future one. We might suppose, in like manner, that a human being could go on living for ever; but we could hardly suppose that he has already lived for ever. It does not appear to me that any mathematical theory of infinity can remove this difficulty.

[1] *Some Problems of Philosophy*, p. 168. He seems to have completely missed Kant's point. It may be noted that James has no more agreement with the views of Mr. Russell than with those of Kant.

Mathematical theories are useful as aids to thought, but not as substitutes for thought. They are, in Mach's phrase, "economies of thought"; and an economy of thought may easily lead to an economy of truth.[1] It does not seem that any mathematical theory, *when applied to existing things*, can get rid of the conception of endlessness. It is only in the abstract that it does so; and I think Berkeley's objection to the application of this kind of abstraction to existing things is still valid.

The following way of stating the general argument seems to me convincing. If we think of a series of events, we are thinking of objects that can be numbered and counted —i.e. objects that can be represented by 1, 2, 3, . . . In order that there should be an infinite number of such objects, there must be one that corresponds to each number from 1 to infinity. Now, in this particular case, we are dealing with a succession of objects that have occurred one after another; and hence it would seem that the object corresponding to 1 must be placed at the beginning of the series. It appears from this that we must, in any case, assume that there was a beginning; and we must suppose that, from the beginning up to the present moment, there has been a series of objects corresponding to each of the ordinal numbers from 1 to infinity. But the mere fact that the series continues to advance shows that we have not yet reached infinity. This argument may, no doubt, be met by the contention that the events in time are not to be regarded as a series, but rather as a continuous flow; in which case, any portion of that flow might be held to contain an infinite number of moments. This view will have to be considered in connection with the conception of infinite division. What has to be noted at present is that such a view does not seem to invalidate the argument with regard to a beginning. Each section of time, even if it does contain an infinite number of successive moments, would have a beginning and an end;

[1] Compare the saying of H. Poincaré (quoted in L. Poincaré's *New Physics*, p. 185), "Mathematics are sometimes a nuisance, and even a danger, when they induce us to affirm more than we know." On the mathematical conception of infinity in general, Bosanquet's *Logic* (2nd edition, pp. 163–73) may be consulted with advantage. See also the remarks by Royce in Windelband and Ruge's *Encyclopædia of the Philosophical Sciences*, p. 129.

and, if this is true of each section, it would seem also to be true of the whole.[1]

It may be worth while at this point to notice one of the illustrations that Mr. Russell gives of the way in which the conception of infinity can be applied to events in time; as it seems to me to show pretty definitely the possibility of fallacy in such an application. The case is the one that he calls "the Tristram Shandy"; and it will be well to state it in his own words:—

"Tristram Shandy, as we know, took two years to write the first two days of his life, and lamented that, at this rate, material would accumulate faster than he could deal with it, so that he could never come to an end. Now, I maintain that, if he had lived for ever, and not wearied of his task, then, even if his life had continued as eventfully as it began, no part of his biography would have remained unwritten."

This seems to me, I must confess, to be a *reductio ad absurdum*; and I think it is not difficult to see where the fallacy comes in. It lies in the omission to notice that the two infinite series that are here referred to are parts of a single series. The writing of the autobiography was part of Tristram Shandy's life. Mr. Russell's contention would be intelligible enough if the biography were written by some one else. What it would then mean would be, that we might suppose Tristram Shandy's life to contain an infinite succession of incidents, which could afterwards be recorded in a narrative with an infinite number of details. But it seems clear that the narrative would have to come after the completion of the life. Hence the life would not really

[1] I think Mr. Russell's argument involves some confusion between these two things; but, of course, I may very well be mistaken in this. Even if the world has a beginning, it may still be supposed that there has been an infinite series of states from that beginning up to the present point. Kant's argument is not primarily directed against this; though it may be a question whether it does not apply against this as well. At any rate, this consideration seems to belong more properly to his second Antinomy. His argument in the first Antinomy applies primarily only against the view that there is no beginning; and that, consequently, the whole series, when traced backwards, is without one of its ends, and yet is completed. Mr. Russell seems to have utterly missed the point of this. Surely it is quite legitimate to regard a series backwards, as well as forwards. His objection to Kant on this score seems to me astonishingly trivial.

be infinitely long. It would be a finite life, containing an infinite number of details. It is a case of infinite division, not of infinite extension. And it is to the consideration of this that we now pass.

9. *Infinite Division.*—The objections to the possibility of endless division are even more apparent than those that can be urged against endless extension. It involves the same difficulty of the completion of an endless series; but it has a further difficulty with respect to the limiting conception to which it points. When we think of anything as being divisible without end, and try to give a positive interpretation to the result of such a division, the ultimate parts have to be conceived as infinitely little. Now, the infinitely little seems to be indistinguishable from zero; and zero seems to mean the non-existent. Thus, if we say that an existent object can be divided into an infinite number of parts, we appear to be saying that it is made up of an infinite number of nothings. On the other hand, the grounds that lead us to postulate the possibility of endless division are, in some respects, more cogent than those that lead us to the conception of infinite extension; and we have already seen that most of the illustrations that can be given point rather to the former than to the latter. In the case of infinite division, we start with a completed whole, so that at least its completion cannot be questioned; and yet there seems to be no reason for stopping at any point in its subdivision. Hence Kant urged that, in this case, the series must be supposed to be actually infinite, and not merely indefinitely extensible. But it is to be observed that Kant's argument depends upon the assumption of the homogeneity of the whole that is to be divided. And this is where the weakness of the argument lies. If we assume that a whole is composed, throughout, of homogeneous parts, we are assuming that it is infinitely divisible. The real question is, whether any given whole *is* homogeneous. Now, this at least is clear, that we are not entitled to make any such assumption in the case of degrees and qualities. An intense heat is not made up of a number of smaller heats; nor does it seem legitimate to say that the distinction between any degree of intensity

and the next below it is the same as the distinction between any other intensity and the next below it. Nor, in the case of qualities, are we entitled to say that the distinction between blue and green is the same as that between green and yellow. Hence, in such cases at least, we do not seem to have any ground for the postulation of an infinite series of homogeneous units within a given whole. Moreover, if we confine ourselves to definitely recognizable distinctions of degrees and qualities, it seems certain that the number is finite. Similarly, modern physical science [1] tends more and more to throw doubt (to say the least of it) on the view that physical bodies consist of parts that can be indefinitely divided into other parts that are homogeneous with themselves. If this is not the case, the argument from homogeneity is not cogent. There may be parts that are not capable of further subdivision, and that can, indeed, hardly be described as physical bodies at all, or regarded, in any definite sense, as occupying space.[2] Similarly, it may be doubted whether any such conception of divisibility is applicable to conscious states. An experience of pleasure, for instance, does not appear to be capable of subdivision into a number of homogeneous parts.

The strongest case, however, for the postulation of infinite subdivision is probably that of motion; and it is in con-

[1] See, for instance, *The New Physics*, by L. Poincaré, p. 98.

[2] In Mr. Russell's criticism of Kant's second Antinomy (*Our Knowledge of the External World*, pp. 158–9), it appears to be forgotten that Kant's difficulty was not with regard to space as such, but only to objects in space. He saw no difficulty in the indefinite divisibility of pure space, but only of the things that occupy space. In this I think he was right. The solution that is here suggested is that material things are not to be thought of as *occupying* space. It seems enough to affirm that the qualities that constitute material things can be rightly referred to certain positions in space. These positions need not be supposed to be infinite in number. With regard to the hypothesis that space may ultimately be composed of points, rather than of spaces, it must suffice to remark that there seems to be no meaning in mathematical points, except as positions in a spatial order; just as lines would seem to be directions, or series of directions, in such an order. Spatial order is, consequently, presupposed in the existence of points, and could not be composed of them. The view of space as a definitely connected order seems to me to be the essential contribution that Kant made to the treatment of it, as against Hume's conception of it as a collection of coloured or tangible points. The points have to be placed in a certain order before they can be described as having any spatial characteristic. Even Hume's points, of course, were not supposed by him to be simply mathematical points. They were *minima visibilia* or *tangibilia*.

nection with this that the most serious difficulties have been raised. When any body moves from one point to another, it is certainly natural to think of it as passing through an indefinite number of intervening positions; and it is here that we come upon the chief paradoxes of Zeno. With regard to Achilles and the tortoise, however, it seems clear that the motion does not consist of homogeneous parts. Both of these moving bodies would presumably advance step by step. Two cannon-balls, moving with different velocities, would furnish a better instance. But the question is at once suggested, whether all motion may not be discontinuous. Few instances of a motion that is apparently continuous could be more striking than that of a ray of light; and yet it appears to be definitely known that the physical movement that is involved in this case is broken up into waves that are discrete,[1] and that may be said to leap from point to point, just like Achilles. The motion of a cannon-ball may —and, indeed, almost certainly does—consist of similar leaps. If so, we, of course, come upon another of the paradoxes of Zeno—viz. that "the flying arrow rests." If the flight of the arrow is discontinuous, this may be interpreted as meaning that it *is* successively at the points A, B, C, . . . but is never moving between them. But is this a serious objection? If it occupies these points successively, it *does* move from one to another. Its motion would not be made any the less real by the fact that it did not occupy any intervening positions. The fact that there is no cardinal number between 2 and 3 does not make the transition from 2 to 3 any the less real; nor does the fact that there is no letter between C and D make it any more difficult to pass from the one to the other. Such considerations may at least serve to show that there is no real reason for denying that the number of parts in the subdivision of any concrete thing may be finite. Whether there is any definite ground for affirming this, is a point that we must consider later.[2]

[1] It seems at least doubtful whether this gulf can be bridged.

[2] It will be observed that what I am here urging is the opposite counterpart of M. Bergson's contention. He maintains that we tend to postulate discreteness in dealing with continuous magnitudes. I believe it is much more often the case that we imagine continuity where there is real discreteness.

10. *Infinite Approximations.*—A good many cases in which the conception of Infinity is commonly applied are cases of approximation. The gradual approach of a straight line to a curve, which it never actually touches, is a purely mathematical instance. So is the approximation of $1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8}$, etc., to the value 2. In practice, of course, any visible straight line, which was gradually approaching a visible curve, would come in contact with it at some point; and the value 2 would at some point be reached, in the case of any concrete magnitude, by such an addition as that expressed in the above series. The approximation of a series of regular polygons to a circle is a similar illustration; and, here also, a series of visible polygons would lead, at some point, to a figure that could not be distinguished from a circle. This case is one of qualitative difference; and there are many instances of this type. The gradual approximation of the shades of one colour (e.g. yellow) to another (e.g. red) is a good illustration. The approximation of modes of behaviour resulting from highly developed instincts to those that are dependent on reason might be taken as another. Instinct and reason have been said to be "for ever separate, yet for ever near"; but the modes of behaviour at least to which they lead are sometimes hard to distinguish. Talent and genius are commonly distinguished; but there are cases in which it is certainly not easy to say with which of them we are concerned. Carlyle (who was rather too fond of the use of the conception of Infinity in a somewhat vague sense) spoke of "the infinite difference between a good man and a bad man"; yet, here also, the gulf can hardly be held to be an impassable one. The wicked may forsake his wickedness; and the good may degenerate. When, however, any characteristic is recognized as being qualitatively distinct from another, it may be said, in a quite intelligible sense, that the distance between them is infinite. Sometimes the use of the conception of Infinity in this way seems to be little more than an indirect way of stating that there is actually a qualitative difference. The definition of genius as "an infinite capacity for taking pains" might be interpreted as an indirect way of saying that no finite degree of pains would produce

the results of genius. It seems clear, however, that, in such cases, we are not concerned with Infinity in any strict sense of the term. If the objects dealt with are really different in kind, there is no real transition from the one to the other (e.g. from colour to sound). When, on the other hand, the difference is only one of quality, the recognizable degrees of distinction are finite in number.

11. *Infinite Thought.*—There are various ways in which the conception of Infinity may be applied to thought. One of them is somewhat fantastic, but is worth noticing in connection with what has gone before. It is said that to know implies that we know that we know; this implies that we know that we know that we know; and thus we are led into an endless series. This, however, is sophistical, and only serves to bring out some ambiguity in the meaning of knowledge. It is possible to cognize, in a wide sense of the word, without any definite self-consciousness. We may apprehend a pain or a sound or even a complex occurrence or general truth, without taking any definite note of the fact that we are experiencing it. The taking note of this is a subsequent act of reflection; and we may go on to reflect further on its significance, to connect one fact of knowledge with another, and to regard them more and more definitely as belonging to the totality of our Universe. If our Universe contains an Infinity of knowable objects, there is a potential Infinity in the process on which we thus embark; and, if we include Universals and Orders, as well as particular Existences, it is no doubt true that such a potential Infinity is involved. But the actual process of thought exists only so far as it is definitely pursued. The infinite implication is objective, not subjective.

The Infinity of thought is better understood in the sense of completeness or perfection, rather than in that of an endless series. It has been urged that a thorough knowledge of anything would involve the knowledge of everything. This was specially emphasized by Leibniz, and is summed up in the often-quoted lines of Tennyson about the "flower in the crannied wall"—

> If I could understand
> What you are, root and all, and all in all,
> I should know what God and Man is.

It is no doubt true that the thorough study of any concrete object would lead us on gradually to the consideration of its relations to all other objects; and, if the whole can be regarded as a perfectly co-ordinated Cosmos—a question that is to be dealt with in the following chapter—the knowledge of the part would lead us on to the knowledge of the whole. As such knowledge would include the apprehension of infinite Orders, it might certainly be said to contain Infinity. But it should be observed that the knowledge of Infinity need not be itself infinite. Once we understand the principle involved in the structure of an Order, no further understanding of it is gained by following out its endless implications. We are not made any wiser by adding an indefinite number of threes to ·333 . . . Hence, the Infinity of Knowledge should be understood in the sense of completeness, rather than of boundlessness. And, as this appears to be true of all attributes, it may be well to notice at this point what is to be understood, in general, by Infinite Attributes.

12. *Infinite Attributes.*—The conception of Infinity—especially in the Cartesian school, where it was most freely applied—has been specially used as a determination of the idea of God. In this use it is generally regarded as being applicable to certain attributes, of which the chief are knowledge, power, and goodness. Temporal and spatial infinity have also been frequently ascribed to God; but with these it is not necessary to deal further at present. The other three forms of infinity, however, call for some notice.

As regards the first, it may be observed that, if infinite is interpreted as meaning boundless, infinite knowledge would seem to mean the knowledge of an endless number of things. Now, as we have just noted, there is evidently a sense in which any one who has a clear apprehension of number at all does know an infinite number. A competent mathematician may be said to know all conceivable numbers, since the formation of numbers depends upon a single principle; and,

if it be allowed that an infinite number is conceivable—and there certainly appears to be a quite intelligible sense in which it is—the mathematician knows that ; and, indeed, he does not need to live for ever in order to know it. But he does not know all the relations that might be ascertained as holding between different numbers. Infinite knowledge would presumably include this—though it is doubtful whether it would be a very exalted conception of God to think of Him as a sort of glorified calculating boy. Infinite knowledge, we may suppose, would include also a full apprehension of the temporal, spatial, causal, intensive, and qualitative orders, and of all the different kinds of existences, and of all the relations that could be ascertained as holding within or between these various types ; and this kind of knowledge might be held to be boundless. As regards particular existences, the knowledge of these would not be boundless, unless the things to be known are boundless—which is at least doubtful ; but it would include the apprehension of every particular thing that actually does exist. In this way it would certainly be all-inclusive, but not endless. Even as regards the all-inclusiveness, it might be better to think of this as a complete understanding of the principles on which the existence of things depends, rather than an apprehension of the details of their existence as distinguishable objects.

Infinite power is still more difficult to interpret, when infinity is understood in the sense of endlessness. Some writers have interpreted it in a way that seems clearly to lead to absurdity. Dr. McTaggart, for instance, takes it as implying the possibility of bringing about anything, however self-contradictory it may be—of making black white, good evil, the existent non-existent, the infinite finite, $2 + 2 = 5$ or 100, and so on. This, however, seems meaningless.[1] A being infinitely powerful in this sense might evidently also be lacking in all power. Such a being would no doubt be, in the fullest sense, unconditioned or indeterminate, like the primæval chaos of Anaximander. But we might interpret infinite power as meaning rather the possi-

[1] See Ward's *Realm of Ends*, p. 353 ; and compare Pringle-Pattison's *Idea of God*, p. 404.

bility of accomplishing whatever is chosen. It would then be limited by the condition that what is chosen is not evil or absurd—i.e. it would be taken in conjunction with the conceptions of infinite goodness and wisdom.[1] Infinite power, thus interpreted, would be boundless, if there is an endless number of things to be chosen. But its essential feature would seem to consist, not in its boundlessness, but in its freedom. This is a point to which we shall have to return shortly.

Infinite goodness, again, interpreted as boundless, would seem to mean the choice of what is best in every conceivable case. If the number of cases is endless, the acts of choice would be innumerable. In dealing with goodness, however, it seems clearly to be better to regard the attribute as being essentially qualitative. The attitude of always choosing the best, though it may be applicable to an indefinite number of cases, seems to be in itself a simple determination of will or character. It does not really consist of a number of distinct things. The endlessness lies only in the number of cases to which the single principle of choice may be applied. Hence it seems best to speak of complete or perfect or inexhaustible goodness, rather than of infinite goodness.

It is perhaps partly the difficulties involved in the application of the conception of boundlessness to such attributes that have led some recent writers to postulate the existence

[1] I think Dr. McTaggart's contention (*Some Dogmas of Religion*, § 166) is largely dependent on the view that the principles of Identity, Contradiction, and Excluded Middle are *laws*. Once it is seen that they are simply the implications of intelligible meaning, it is surely evident that they do not limit an intelligent being. The question (p. 204), "Could God create a being of such a nature that he could not subsequently destroy it?" is on a par with some of the old Megaric puzzles. It seems enough to say that such an act would be both evil and self-contradictory. It may be, however, that this puzzle is intended as an *argumentum ad hominem*. If so, I think there ought to be a reference to the particular *homo* against whom it is directed. Aquinas, for instance (*Summa contra Gentiles*, especially II, xxv), recognized plenty of qualifications with which the conception of omnipotence must be understood. See Jourdain's *Philosophie de Saint-Thomas*, p. 220. It seems clear enough that a wise and good God could not do what is wicked or absurd. Moreover, if we are to play with the conception of omnipotence, it might surely be urged that a being A, who created another omnipotent being B, would not by so doing derogate from his own omnipotence. The omnipotence of A would be limited by that of B; but such self-limitation would not be an evidence of lack of power. But I think the essential point is that such a conception as that of omnipotence, if it is to have any meaning at all, must be interpreted in relation to other conceptions with which it is connected.

of a "finite God." If an infinite God exists, it seems clear that such a being must be thought of as completely actualized, not merely as containing endless possibilities; yet it is difficult—if not actually self-contradictory—to think of any concrete thing as being both boundless and complete. It is, however, partly from the point of view of perfection that the conception of a finite God has been brought forward. It is urged that what we know about the imperfections of our Universe forces us to believe that, if there is a God at all, he is either not perfect in goodness or not perfect in power or knowledge. "In a being all-powerful," as Guyau says,[1] "patience of evil would be a crime." But the consideration of this problem must be reserved for the following chapter.

13. *The Finitude of Existent Things.*—So far, in referring to particular existences, we have been content to urge that there is no positive ground for regarding any of them as infinite in number.[2] I believe, however, that it is possible to go farther than this; and to state definitely that there is a positive ground for holding that they are all limited in number. The general ground for this belief has been partly indicated with reference to the particular case of successive events in time; but it appears to be applicable to other cases as well. To say that any existing things are infinite in number is to say that, in the process of counting them, we should find one that corresponds to every possible number from 1 to infinity. Now, although infinity is a definite conception as applied to the series of numbers, it does not appear to be possible to apply it positively, in the same sense, to existing things. As applied to such things, what it must be taken to mean is that, however many there might be of them, there would always be the abstract possibility of adding more. But the things that exist must be definite in number. Hence, however many of them there are, there might—from the point of view of pure number—be an endless

[1] *Non-religion of the Future*, p. 507. See also Mr. Benson's *Father Payne*, pp. 96–8.

[2] Professor Ostwald in his *Philosophie der Werte* (p. 150) gives some interesting instances of physical conditions that necessitate finitude; but I am unable to form any judgment on the cogency of the considerations that he adduces.

number more added. Hence those that actually exist cannot be infinite in number. In short, the fact that the series of ordinal numbers is infinite prevents anything else from being infinite in the same sense. Even Universals and ultimate Categories can hardly, it would seem, be regarded as infinite in number, if they are to be supposed to be capable of any exact determination.

14. *Infinity and Freedom.*—In its bearings upon human life and aspiration, the conception of Infinity is very closely related to that of Freedom. When we think of our finitude as an imperfection, we are, in general, chafing against certain restraints. The modern man, with his keen appreciation of liberty, tends to be more fully conscious of such restraints than the ancients were. The primitive man, when his sense of obligation was at all awakened, accepted his station and its duties almost as a matter of course; and the Greeks, as we have already noted, tended to regard limitation as a necessary mark of perfection. They were willing to allow that slaves and private persons (ἰδιῶται) might be allowed a certain licence; but the free citizen was restricted by definite laws. Plato regarded it as the very essence of a perfect State, that every one in it confines himself to his own special and limited functions. Aristotle's High-minded Man is well satisfied with himself, because he feels that he has completely realized all the definite and limited characteristics of a perfect citizen. Eastern thought has been more prone to think of perfection as requiring infinity; but it has generally treated it as a remote ideal, only to be attained through the negation of the individual life. It was probably Christ, more than any one else, who familiarized us with the ideal of being perfect as our Father in Heaven is perfect; and so made us dissatisfied with any limited form of development. Kant's conception of immortality as an infinite progress required for the attainment of perfect holiness, is perhaps the most definite illustration of the way in which modern thought has been affected by this conception. Kant thought of this process as an endless one, but conceived that, from the divine point of view, it might be regarded as completed. Royce, if I understand him rightly,

considered it to be a process with a definite end, but involving an unlimited number of stages.

Even Greek thought was not wholly without appreciation of the limitless, as in the ἄνήριθμον γέλασμα of Æschylus, but their artistic sense led them, in general, to prefer what is definite and limited, as in sculpture. Medieval art prefers to have at least some suggestion of transcendence; and modern poetry and music—especially perhaps such music as that of Wagner ("music yearning like a god in pain")—is full of such suggestion. On the whole, we tend to think that the Sublime is finer than the Beautiful, because it frees us more completely from "was uns alle bändigt—das Gemeine." It is in this sense of release from all limitations that Carlyle, for instance, speaks of the infinite Shoeblack, who "for his permanent satisfaction and saturation" would require "God's infinite Universe altogether to himself, therein to enjoy infinitely and satisfy every wish as fast as it rose." With this may be compared the saying of Wordsworth—

> Our destiny, our being's heart and home,
> Is with infinitude, and only there;
> With hope it is, hope that can never die,
> Effort, and expectation, and desire,
> And something evermore about to be.

This attitude of mind[1] has its dangers, as leading us out into vague ideals, instead of to that which, in Aristotle's phrase, "can be done and achieved by man." Mr. W. B. Yeats records[2] how once, as a boy, he was called on to write an essay on the theme that "Men may rise by stepping-stones of their dead selves to higher things"; and how his father indignantly denounced the choice of such a subject, as tending to destroy definiteness and fixity of purpose—suggesting that a much better subject would be "To thine own self be true." Most of what is objectionable in the writings of Nietzsche seems to arise from a vague discontent with all things established and conventional, and the

[1] A good illustration of the manner in which this way of thinking tends to persist, even in minds that are not apt to dwell much on transcendent conceptions, may be found in J. M. Guyau's *Non-religion of the Future*, pp. 500–6.

[2] *Reveries of Childhood and Youth*, pp. 108–9.

apprehension of an indefinite and far-off goal whither "stormier than the sea storms our great longing." Even the purely mathematical conception of infinity should serve as a corrective to such a tendency as this; for there is at least nothing vague in the mathematical conception. It is the thought of a determinate result, reached by a definite method, though involving a process that is essentially without limit. It was against such vague aspirations as those here referred to that Goethe insisted that "he who would accomplish anything must learn to limit himself." The Christian conception of "dying to live" may also be interpreted as meaning that some sacrifice or limitation is necessary for the achievement of the complete or perfect. The idea of the infinite is thus contrasted with that of the boundless. Freedom, as Spinoza put it, is recognized as meaning, not absolute independence of law, but rather an understanding of the conditions by which we are bound, and acceptance of them as the law of the Universe of which we are spiritual members, and hence as essentially our own law. The conception of infinity, as being closely connected with that of freedom, and as meaning essentially what is self-bounded, as contrasted with that which is limited from without, was still more definitely emphasized by Hegel.[1] This leads us to notice more definitely what is to be understood by the conception of perfection.

15. *The Conception of Perfection.*—The conception of perfection, as we have already noticed, has often been identified—especially in the Cartesian school—with that of infinity. In ordinary discourse it is common enough to use such expressions as "infinitely pure," "infinitely wise," "infinitely just." But such conceptions do not necessarily imply anything of the nature of an infinite series, but at most of an indefinite number of approximations. What they do imply is a certain completeness in the realization of a type. For absolute perfection something more than this would seem to be wanted. However completely any type may be realized, it is still a limited type, and has to be explained by reference to other types. The conception of perfection appears to demand some-

[1] See McTaggart's *Commentary*, p. 34.

thing that is self-explanatory—*causa sui*, in the language of Spinoza. It seems clear that we cannot find any existing thing within our Universe to which this conception can be applied; nor does it seem to be found in any universal or ultimate category, except the category of perfection itself. The nearest that we can find to it is in human life, in so far as human beings are capable of taking up that attitude, which is best described by Spinoza—that of complete understanding of the whole, and acceptance of its conditions as the essential law of our own being. Such an attitude, however, is possible only if we can regard the whole as a self-explanatory Cosmos. It is with this conception that we have to deal in the following chapter.

CHAPTER IV

THE CONCEPTION OF A COSMOS

1. *The Possibility of a Self-explanatory System.*—The conception of Perfection would seem to be the only one in which there is any hope of finding an ultimate explanation. If a system is seen to be perfect, no further explanation need be sought. It is then apprehended as *causa sui*. On the other hand, in dealing with anything that displays imperfection, we are always led to inquire, Why is it thus, rather than otherwise? Now, it is no doubt quite possible to harden our hearts against this demand for explanation, and to say that we must rest satisfied with the description of what we actually find in the universe of our experience, without any attempt at ultimate explanation. This is the attitude of Positivism; and, indeed, it is also the attitude of that kind of Agnosticism which is represented by Kant and some of his followers. According to these views, we can only know what is phenomenal, and the phenomenal never contains any explanation of itself. It has simply to be accepted. Now, it is of course true that we have to accept the phenomenal Universe. William James reported [1] the saying of Margaret Fuller, that she "accepted the Universe," and Carlyle's comment, "Gad! she'd better." In a sense, it may even be admitted that we have to accept it without any hope of a completely satisfactory explanation. Yet it is hardly possible to inhibit altogether the demand of our nature for some sort of explanation of what we know. If we cannot find a complete one, we must at least try to see in what direction an explanation is to be sought. Now, there are two main directions in which in almost all ages of reflective thought men have been led to look for a self-

[1] *Varieties of Religious Experience*, p. 41.

explanatory system. Mathematical science seems to be, in a sense, self-explanatory, and so does human choice. A brief consideration of the sense in which this is true in each case may bring us to the heart of our problem.

Mathematical science is self-explanatory in the sense that, so long as we confine ourselves strictly to the conceptions of number and extensive magnitude, everything that can be discovered about them is discovered by the direct implications of the systems with which we are concerned. Nothing has to be called in from the outside. Hence it is not surprising that many, in almost all ages, have taken mathematics as the type of a self-explanatory system, and have sought to use its methods in the interpretation of the universe in general. The Pythagoreans and the Cartesians are the most conspicuous instances of such attempts. These attempts, however, have served to bring out the inevitable limitations of the methods. These limitations would seem to be mainly two. In the first place, while mathematical systems may be said to be self-explanatory within the orders that are constituted by their fundamental conceptions, these conceptions themselves call for interpretation by reference to their place in relation to other fundamental conceptions, and thus can hardly be treated as completely self-explanatory. In the second place, however self-explanatory the systems of pure mathematics may be, they do not contain the explanation of anything outside of themselves, and consequently cannot furnish any complete interpretation of the existent universe. In view of the previous discussions of mathematical conceptions, it is hardly necessary to dwell further at this point on these limitations. To meet the first defect, it would be necessary to consider all the fundamental conceptions that are implied in the structure of a knowable universe. As we have already noted, Hegel's *Logic* is the most thorough attempt in this direction. If such an attempt can be successfully carried out, it provides us with a system of conceptions that may be said to be self-explanatory; and mathematical conceptions would have a definite place among these. But this would still be a system of pure universals, and would not of itself contain an explanation of the existent universe. In Hegel's phrase, it would only give us "God before the creation of the world."

It would, consequently, be necessary to supplement it with some sort of philosophy of nature and spirit. Thus we are, at any rate, led away from pure mathematics.

In human life, on the other hand, we find something that also presents itself as being, in a certain sense, a self-explanatory system. The most fundamental conception in human life, as we have seen, is that of value. Human action is explained by the effort after the realization of that which has supreme value, whether this is best to be described as the Good, the Beautiful, or the Perfect. When we see, or think that we see, that a human being has acted simply and solely with a view to the realization of what appeared to him to be best, we do not feel that we stand in need of any further explanation[1]; and it would seem, in like manner, that, if the universe as a whole could be regarded as realizing what is best or most perfect, this might be taken as a complete explanation of its existence. This was the contention of the Platonic Socrates, and it was essentially repeated by Descartes, Spinoza, and Leibniz; and it seems to be involved also in the more modern systems of Hegel, Mr. Bradley, and others. We cannot here discuss any of these systems in detail; but some further considerations may help us to understand their fundamental implications.

We may note, to begin with, that this method of interpretation really includes the one that was previously referred to. If the universe is to be thought of as a perfect whole, it would seem that this perfection must show itself in the fundamental conceptions by which its structure is determined. Hence the deduction of an orderly system of categories seems to be an essential element in any such interpretation. But, on this interpretation, the most fundamental conception is that of a perfect whole; that is to say, it is, in a certain sense, a teleological explanation. In what sense it is so, we must try to consider a little farther.

2. *The Teleological Interpretation.*—In the general consideration of explanatory methods contained in our treatment of causation, it was urged that the formal conception is the most fundamental—i.e. the conception of certain organizing

[1] I.e. any further *reason* or *ground*.

principles. But, in the further consideration of modes of unity, it appeared that the most self-explanatory of these modes is to be found in the life of spirit, guided by the idea of perfection. Here the formal principle is found in a final cause. There are different ways, however, in which this may be conceived. The most obvious way is that of the relation of means and end. We think of the Good or Perfect as that at which human beings aim; and we regard them as subordinating everything to this end as means to its realization or as obstacles that have to be removed. To some extent this way of regarding human life is adequate; but it is hardly a way that could be applied to the universe as a whole. It is only applicable to a system that is not completely self-explanatory. Human life, taken by itself, does not contain the explanation of the circumstances in which it grows up and the conditions with which it has to deal. Hence the end to which it strives may be treated as external to these circumstances or conditions; and it has to be conceived as striving to adapt itself to them, and at the same time to adapt them to the achievement of its purpose. Here the conception of means and end has some applicability. But, if the universe is to be regarded as a perfect whole, there is nothing external to which it has to adapt itself, or which could be used as means for the furtherance of its ends. Hence, if we are to apply a teleological conception, it must be in a somewhat different sense. The "finality" that we conceive must be supposed to be "immanent" in the system. A work of art may serve, to some extent, as an illustration of what is meant. Such a work is a significant whole; and its end may be said to lie in the perfection with which this significance is expressed. Every part of the whole may be described as means for the realization of this end; but the means in this case cannot be treated as external to the end. Rather what serves as means is also an essential aspect of the end itself. It would seem that it is only in a somewhat similar sense that the conception of end could be applied to the universe as a whole. Its end is its own perfection; and, if this end is achieved, it must be achieved within itself. Nothing can be supposed to be *merely* means, though no doubt some parts may be nearer to the whole, and

in that sense nearer to the end than others. This I understand to be what is in the minds of all those who take perfection as the explanatory principle; and it is evidently, to some extent, a method of explanation that is primarily derived from the consideration of human life as guided by the choice of the best. It thus leads us to the conception of the universe as essentially a spiritual unity, the guiding principle in which may be described as God. On the whole, it seems to be true that the conception of a teleological system, in this sense, still is for us, as it was for the Platonic Socrates, in the *Phædo*, the type that we naturally have in our minds when we look for an ultimate explanation of the Universe. The Cartesian idea of Perfection, especially as developed by Spinoza and Leibniz, has a similar foundation; though in the work of the former at least it is somewhat concealed, as Hegel put it, by the substitution of Substance for Subject—a characteristic which gives to the whole construction a certain air of Naturalism, rather than Humanism. When we speak of *deus sive natura*, the latter phrase is apt to remove a good deal of the significance of the former. In general, however, we may affirm that all attempts at ultimate explanation tend to become, in some degree, anthropomorphic. We see this tendency at work, from the times of primitive animism, through the polytheistic religions, to almost all the leading types of philosophical construction. But, in constructive philosophy, the demand for cosmic unity in any explanation that can be ultimately satisfactory, leads us away from the thought of gods to that of some all-embracing divine personality. Even the gods of Greece, as Hegel said, were "not anthropomorphic enough"; for the human is not the purely individual. If we are to have a God, He must be one who is at least as human as Shakespeare; and that means one who is super-personal, in the sense at least of being all-comprehensive. He must be thought of as a God who is not aloof from the world, letting it, in Goethe's phrase, "run round his finger," but one who is—like the Dreamer of whom we previously spoke—involved in the life of the Universe. We are led, however, by such reflections, to a general consideration of the conception of God.

3. *The Conception of God.*—The conception of God as a Creator or Demiurge is beset by many difficulties. If such a being is thought of as distinct from the world that he creates, and from what he aims at achieving through its creation, he is inevitably reduced to the position of one particular person among others; and this seems to imply that he is finite, not merely in the sense of having a definite purpose and working with a definite material—which, as we have already urged, would be no real objection—but in the sense of having some real imperfection in his power of dealing with that material. This is quite definitely represented in Plato's treatment of the subject; and it is recognized in the modern conception of a finite God, suggested by J. S. Mill [1] and adopted by William James,[2] Dean Rashdall,[3] and several others. Such a God, it would seem, could not be supposed to contain within himself any complete explanation either of his own existence or of the existence of the beings whom he creates. Instead of solving the central problem of the Universe, he would only present a fresh problem for solution. Nor is this the only difficulty. The evil that is apparent in the world, being regarded as something separated off from the being who creates it, would be something for which he was accountable, except on the Manichean hypothesis or on the hypothesis of some ultimate form of Chance or Contingency. These hypotheses clearly involve the abandonment of any real attempt to conceive the Universe as a Cosmos; and yet it is only with a view to this that the hypothesis of a God is introduced at all. Hence it is hard to see how a finite God could be absolved from the blame of the evil that appears in the world, even if it could be supposed that he works out some good by means of it. It is vain to suggest, as Leibniz does, that some evil is

[1] See *Three Essays on Religion*, especially pp. 28–41 and 176–83. Mill's statements are, I think, much better worth reading than anything that has since been written on this subject. The conception is perhaps primarily derived from Hume. See his *Dialogues concerning Natural Religion.*

[2] In *A Pluralistic Universe.*

[3] See his *Theory of Good and Evil*, vol. ii, p. 237. I understand, however, that Dr. Rashdall has modified his view since this was written. Reference may be made also to Dr. Schiller's *Riddles of the Sphinx*, chapter x, and Dr. Ward's *Realm of Ends*, pp. 443–4. The conception is discussed at various points in Professor Pringle-Pattison's lectures on *The Idea of God.*

involved in the existence of any finite world; for, in that case, it seems clear that such a world ought not to be created at all by a being supposed to be in himself good and standing apart from the world. The problem of evil, as we have already noted, does not seem to be soluble except on the supposition that it is somehow involved in the being of God himself. Hence the great mystic Novalis urged that, if we are to think of a God at all, he must be conceived as a suffering God; and, in somewhat the same spirit, Goethe maintained that the Worship of Sorrow and Evil (in general terms, the Worship of all that is Beneath us) is a necessary element in the development of the highest reverence. Indeed, this is recognized even in popular expressions of the spirit of Christianity, in which God is represented as somehow bearing the sins and sorrows of the world.

> In every pang that rends the heart
> The Man of Sorrows had a part.

It seems clear that there can be no intelligible theory of a perfect Cosmos which does not contain some equivalent of this. It may be contrasted with the view of the divine nature set forth by Lucretius—

> Semota a nostris rebus, sejunctaque longe.

But, as Mr. Bradley says,[1] "banish all that is meant by the indwelling Spirit of God, in its harmony and discord with the finite soul, and what death and desolation has taken the place of living religion." But, if we adopt a point of view of this kind, there remains an apparent distinction between the Perfect God, the Suffering God, and the growing consciousness of the world, which it is not easy to bridge over. This difficulty may be partly met, as we have already tried to indicate, by the thought of an eternal Dreamer, in whom the life of the world is in reality included. But the life of the Dreamer itself calls for explanation; and such explanation can hardly be found without the introduction of conceptions that transcend personality. The thought of a Trinity is one attempt to effect such a transcen-

[1] *Essays on Truth and Reality*, p. 437.

dence—the conception of three distinct persons composing the unity of the divine being.[1] Some recent philosophies tend to represent the divine being as containing many more than three distinct persons; the most definite of these views being perhaps the one that has been set forth by Dr. McTaggart. He has chosen, like Shelley, to describe himself as an Atheist; but it seems more correct to characterize him as a polytheist, or at least as one who maintains that the divine being has to be thought of rather as a plurality of persons than simply as one.[2] But of course this plurality of persons has to be regarded as somehow constituting a spiritual unity. The Greek conception of a Fate that overrules the gods may be regarded as another attempt to transcend personality. But perhaps the Indian conception of Brahman comes rather nearer to what is required. The philosophical conception of the Absolute has a certain kinship with this; and, in general, when the ultimate unity is conceived in any way that definitely transcends personality, it is probably less misleading to describe it as the Absolute rather than as God, though the former term also is not wholly free from objection. Now, if even the best human beings may be said to transcend the limitations of a merely individual personality, it certainly seems reasonable to suppose that the unity of the Cosmos must involve at least a similar transcendence. Accordingly, we must now try to see a little more definitely how such a transcendence is to be conceived.

4. *The Conception of the Absolute.*—Plato's Demiurge was supposed to look to the form of a perfect life (the αὐτὸ ὃ ἔστι ζῷον) in his effort to construct a world;[3] and it

[1] Hegel laid much emphasis on the conception of a Trinity. See McTaggart's *Hegelian Cosmology*, chapter viii. Among recent writers, Soloviev seems to have laid a similar emphasis on it. See the account of his philosophy in *Mind* (October 1916). The philosophical conception of the Absolute certainly appears to involve three aspects—the unity of the whole, its disruption, and the process of recovery. But it is doubtful whether personality is properly ascribed to any but the third of these.

[2] See *Studies in Hegelian Cosmology*, chapter iii, especially p. 93. The question is of course largely a verbal one.

[3] Aristotle's description of the divine activity—κινεῖ ὡς ἐρώμενον—seems to express a similar view. "It moves the world as if through desire or love": I can only interpret this desire as the longing for eternal Beauty. It will be remembered that it is with this phrase that Dante concludes his *Paradiso*. See Caird's *Evolution of Theology in the Greek Philosophers*, Lecture XIV.

would seem that our eternal Dreamer or Poet must be supposed to have a similar outlook. Thus the conception of a perfect whole has to be thought of as being in some way prior to the formation of a Universe. The priority would of course not be temporal; for the conception of Perfection, like all Universals, would seem to be in itself timeless. The construction of our world-Dreamer, again, would be, not timeless, but eternal—i.e. the form of time which it contains would not itself be transient. The general plan of the perfect whole would stand eternally as an object of contemplation that is presupposed in the actual construction; and the construction would be eternally reproduced by the contemplative intelligence. I understand it to be in some such sense as this that Hegel described his system of universal thought-forms as "God before the creation of the world." It was a bold stroke on Hegel's part to seek to evolve such a system out of the consideration of the simple conception of Being. How far his construction can be regarded as a successful one, I am not prepared to determine. I doubt whether it is wholly successful as an exposition of the fundamental conceptions that we use in the interpretation of our human Universe; and I suspect that, even if it were completely successful for this purpose, it would remain inadequate as an account of the conceptions that are involved in the structure of the Cosmos. But this is not much more than a conjecture. That there is some such plan, however, seems to be a necessary presupposition of the reality of a Cosmos. Assuming such a plan, we may then suppose that there is involved in its being the contemplation of it by an eternal spirit or spirits, which proceed to embody its requirements in the construction of a Universe or Universes. These constructions would contain in themselves the aspect of before and after; but each such construction, being contained within the life of an eternal Dreamer, would be itself eternal. Each eternal spirit, in setting out to realize the requirements of the scheme, would begin, if we may so express it, by descending into particularity and separation from the whole, and would then ascend by degrees through all the varied forms of existence up to the contemplation of the realized perfection, from the general plan of which it set out. The

return to perfection would at the same time be the starting-point for the reconstruction of the whole. Such a process, it would seem, though containing time in it, would not itself be in time. There would be nothing either before or after it. It would be eternally presupposed in the nature of the perfect whole, which is eternally unfolding itself. It might perhaps be conjectured that there is always some spirit occupying the attitude of contemplation of the perfect whole, from which it then descends to take part in the downward and upward path. The abiding One would thus be an attitude or point of view rather than a person ; and it would appear that we ought to assume that this attitude would in the end be reached by every real spirit. In this sense I should be disposed to accept the view of Dr. McTaggart, that the point of view of the eternal may be reached through a time-process. But it is evident that there is an element of conjecture in any attempt to describe this ultimate point of view. All that is really essential is the recognition that the conception of some such mode of unity is not intrinsically absurd. If it is not absurd, it would seem to be the kind of hypothesis that is required for the interpretation of our Universe. It seems desirable, however, to make some further attempt to clear up certain special points with regard to it.

5. *How the Perfect may include the Imperfect.*—Here we are brought back again to the general problem of evil. It is certainly difficult to see how a whole that is to be conceived as absolutely perfect can yet contain elements of imperfection ; yet, on the other hand, it seems clear that, if the relation of whole and part is to be allowed at all, the parts can hardly be supposed to have the perfection that belongs to the whole. This becomes sufficiently apparent even from the consideration of any beautiful object in our Universe that may be regarded as approximately perfect in its kind. The eye may be characterized as the most beautiful part in a living being ; but, as Plato urged, it would not be proper to give to the eye such a degree of beauty as would make it cease to be subordinate to the perfection of the whole. If a part were perfect in itself, it ought surely not to be a part, but rather an independent whole. A

beautiful picture, every part of which was completely beautiful in itself, without reference to the whole, would be rather a monstrosity than a work of art. It may be objected, however, that such considerations do not go far to meet the difficulty that is here raised; for the eye, it may be said, or the parts of a beautiful picture, or the lines of a beautiful poem, though not perfect in themselves, are still beautiful; and they are not opposed to one another, or to the whole of which they are parts; whereas it would seem that within our Universe we have to recognize the presence, not merely of imperfection, but of actual opposition and strife. It may be answered that some degree of opposition and strife appears in those works of art that are commonly regarded as most perfect. The most intense beauty seems to be hardly possible without some tragic note. But to this it may be objected again, that such opposition is introduced in works of art only in order that they may serve as images or types of the actual Universe. If they had not conflict within themselves, they would be in too glaring conflict with the world as we know it, and to which they have a constant reference. Hence it seems necessary to carry the explanation somewhat deeper. We have to recognize the sense in which every positive conception seems to imply its negative. Heraclitus was perhaps the first who definitely brought this out, though he set it forth in somewhat "dark sayings." His contention that the Perfect only becomes intelligible in relation to the Imperfect, was adopted and developed by Hegel; and it would seem that it is only by the recognition of this that we can see the significance of the negativity, imperfection, and evil that are so painfully apparent in the Universe as we know it. When we try to think of a pure positive—whether it be simple Being or Perfection or some specific quality, such as Blue—it seems clear that, in the effort to hold it apart from what is opposed to it, we empty it of all real content. That there may be Order, we have to think of it as the arranging of something that, apart from such arranging, would be in Disorder. Now, if this is once admitted, it would seem that there can be hardly any limit to the degree of disorder that may be allowed to enter into the constitution of a perfect whole. The more disorder, it

may be urged, the greater is the resulting harmony. The only necessary condition, it would seem, is, that, in the resulting harmony, the element of imperfection or evil should become completely subordinated to and absorbed in the good that is realized through it. How this may be possible, has already been partly indicated; and some further remarks will have to be made about it shortly.

There is an objection, however, that is sometimes raised at this point. Admitting that the conception of a negative is necessary for the full apprehension of a positive, we may yet ask whether it would not be enough that the negative should be presented merely as something that is possible or imaginary, not as something actually existent. The answer, I think, is, that the distinction between what is real and what is imaginary is not one that can be finally maintained. What is imagined is, so far as it goes, real. To imagine what is imperfect or evil, is to have it present before us; just as, to apprehend yellow, as the colour contrasted with blue, is actually to have yellow present. On the other hand, it may equally well be contended that all existing things are, in a quite intelligible sense, imaginary. Change may be said to be the revelation of the unreality of what exists.

Alles was entsteht
Ist werth dass es zu Grunde geht.

It is an aspect of reality; but what it essentially is, is not truly seen in the passing show. It is here that Professor Bergson's conception of the temporal flow has its value. We fix our eyes on the passing moment, and give it a prominence and permanence that do not rightly belong to it. According to the way of speaking that we have here provisionally adopted, it may be thought of as only a passing phase in the eternal dream of reality. Time, as Plato said, is "the moving image of eternity"; or rather, it is eternity itself in its aspect of movement. Thus, what passes in it may be said to be at once real and imaginary—real when viewed *sub specie æternitatis*, imaginary in its apparent isolation.

It may of course be asked why this characteristic of the whole—this opposition of positive and negative—should be a necessary feature of reality. And, if it be answered that it

seems to be implied in the very conception of parts that are essentially bound together in a whole, it may still be asked why reality should have this particular characteristic at all. Why should it not, for instance, be a unity without parts, complete in itself, like the Sphere of Parmenides? It may be replied that the Sphere of Parmenides does not appear to be a conception that has much inherent interest or beauty. But if we are pressed to state further, why the conception of a perfect whole contains those characteristics that seem necessarily to belong to it, I doubt whether we can say much more than Why not? or What else could it be? Polonius may have been ill-advised in suggesting that it is futile to expostulate

> What majesty should be, what duty is,
> Why day is day, night night, and time is time.

All these problems are worth raising, and can probably be solved. But why the perfect whole has the ultimate characteristics that belong to it, is a question that we shall probably never be able to answer till we see it in its perfection; and then, it may be, we shall not want to raise it. At any rate, all that seems essential for our present purpose, is the recognition that there is no inherent absurdity in the conception of a perfect whole containing parts that, in themselves, are imperfect and evil. It may be that some application of the Hegelian dialectic would carry us farther than this, by enabling us to unfold, with complete logical cogency, the whole series of categories that are implied in the conception of a perfect system. But from any such effort as this I here deliberately abstain, and confess myself at the end of my tether. All that I venture to urge is that it seems possible to recognize a perfect whole that can be intelligibly conceived, and that is not inconsistent with the acknowledgment of the existence of imperfection. For it appears that, while imperfection has to be recognized in the parts of the existent Universe, yet the fact of their transitoriness, combined with the fact of their retention as contributory elements in relation to higher modes of development, effectually removes imperfection from the point of view of the whole; and this is all that it appears to be necessary to maintain.

6. *Beyond Good and Evil.*—If the view that we have thus been led to take of the characteristics that belong to a Cosmos is correct, it would seem appropriate to apply to it such terms as Perfection or Beauty, rather than Goodness —so far as any ultimate distinction can be made between the conceptions that these terms express. At any rate, if we follow Plato in speaking of the Good as the supreme conception, we must be careful to guard against its possible ambiguities. The most serious of these arises from the fact that it is most commonly used with reference to human action ; and that, even in that reference, it is apt to be employed in a somewhat restricted sense. Moral goodness is generally conceived as being concerned mainly with the guardianship of values that have been already achieved and established. The good man is thought of as one who gives his support to those institutions and modes of conduct that have been generally recognized as possessing value in the carrying on of human life, such as the Family, the State, the Church, or industry, courtesy, truthfulness, etc. Goodness, in any such sense as this, could hardly be ascribed to the Cosmos, in which these institutions and modes of behaviour may have only a limited significance. Even in the course of human life itself, the institutions are liable to changes in their structure, and the duties to modifications in the claims that they impose. In a larger sense, however, we may think of human goodness as meaning rather the general spirit of devotion to what is true and beautiful, in whatever forms they may be discoverable, and whether they have or have not as yet been embodied in definite institutions and habits of life. In thinking of goodness in this way, we naturally distinguish between the good that we seek to realize and the goodness that loves that object and strives to attain it. We call them both good ; and, indeed, it is often not easy to draw any sharp distinction between them. The good that we aim at is often the same in kind as the goodness that aims at it ; and, if we distinguish between them by calling the one Beauty or Perfection and the other Goodness, we have to recognize that the most complete kind of perfection seems inconceivable without the element of choice or love or valuation, which seems to constitute the essence of good-

ness. At any rate, if we are to think of the Cosmos as a perfect whole, realized through a certain spiritual activity, it would appear that goodness in both the distinguishable senses—both as end and as striving—could be ascribed to it. The whole would no doubt include what for us is evil; but it would include it, not as evil, but as a phase in the achievement of good, absorbed and transfigured by its relation to that supreme purpose. It might, however, in this sense, be said to be "beyond Good and Evil"—i.e. the distinction, as we know it in our partial apprehension of reality, would have been transcended.

It is to be noted, further, that, if we think of the Cosmos in this way, we are almost forced to distinguish three things in the final characterization of it. There is the general plan or idea of perfection, as well as the realization of it through spiritual activity; and we can hardly think of the plan otherwise than as the presupposition of the process. Now, to the general plan, as such, we could hardly ascribe perfection. The idea of perfection is imperfect until it is realized. In this sense we may perhaps accept Dr. Bosanquet's conception of a standard of value which does not itself possess value. Perhaps it may be said also, in this connection, that Plato's conception of the Form of Good errs mainly through its being the suggestion rather of a general plan than of a concrete realization. Understood in this way, it might be not unfair to say that the Form of Good is not itself good. I think there is some trace of a similar defect in Aristotle's conception of the purely theoretical life which alone is to be regarded as divine. But if there is error in these views, I believe it is error that could, to a considerable extent, be corrected from the writings of Plato and Aristotle themselves. The Platonic Good, it may be affirmed with some confidence, is not really intended to be set apart from the living whole which it serves to interpret; nor is the Aristotelian contemplation meant to be opposed to human endeavour. Nor yet, I should suppose, does Dr. Bosanquet mean to affirm that the whole of reality is not to be thought of as intrinsically good. But it is difficult, in dealing with these ultimate problems, to use any forms of expression that may not be misleading. A certain element of metaphor or

analogy seems to cling to any attempt that we may make to characterize the unity of the Cosmos—as, indeed, it does even to our attempts to characterize our own conscious unity. Plato at least was well aware of this.

7. *The Relation of our Universe to the Cosmos.*—According to the view that has been so far developed, it would seem that our Universe would have to be regarded as a partial expression of that eternal process through which the perfect whole unfolds itself. Whether it can be rightly described as the dream of an eternal spirit, seeking to work out what is essential for the realization of a presupposed general plan; and, if so, whether we are to assume that there is only one such spirit and one such realization, or that there may be several of both; these are matters that I do not pretend here to determine. I know of no general considerations that would enable us to decide such questions. On the whole, however, the supposition of several seems easier to understand than that of a simple unity. It would appear that Reality is a very large thing; and we need not be afraid to suggest the multiplication of such entities. Without deciding such questions, however, we may at least state that, if our Universe is to be regarded in any such way as this, there is evidently a sense in which it may be rightly said to be phenomenal—the sense, namely, that it is not merely a part of a larger whole, but a part which, in separation from that whole, can be only partially and inadequately apprehended. In this sense, it may no doubt be said—as Mr. Bradley, in particular, has taught us to say—that it has only a certain Degree of Reality; since, if viewed in its completeness, it would appear to us very differently. We have seen, however, that the antithesis between appearance and reality is not an altogether satisfactory one. Mr. Bradley has to correct it by affirming that Reality "lives in its appearances." It seems better to speak of the degree of adequacy with which Reality is apprehended. That this admits of great varieties, seems pretty obvious. If a cheese mite could be supposed to have a human consciousness, it might apprehend its cheese world truly enough, so far as it went, and even have some apprehension of the larger Universe of cupboards and rooms through which it

was conveyed, but it would have a very imperfect apprehension of the place of cheese in the totality of things ; and, in the absence of a more perfect apprehension, it could hardly be said to know what cheese really is, or what it really is itself. Our apprehension of the Cosmos, if there is a Cosmos, and our apprehension of ourselves and of the place of our lives within it, may well be supposed to be similarly inadequate ; but it does not appear to be right to say that what we apprehend is an illusion, or even that it has only a Degree of Reality. It is rather an aspect of Reality imperfectly apprehended.

8. *The Interpretation of Human Life.*—Human life, from the point of view here represented, would have to be considered as a partial manifestation of the life of an eternal spirit—or perhaps rather of a number of such spirits—having its significance in the gradual attainment of an attitude from which the perfection of the whole can be apprehended and appreciated. It would thus belong to the general upward movement of the Universe. The material system, with its somewhat chaotic play of forces, would seem to represent the downward path, the path of disruption (symbolized, I suppose, in the conception of a "Fall") ; but human life, and perhaps life in general, belongs rather to the upward path, the path of "Atonement"—

> When that which drew from out the boundless deep
> Turns again home.

This upward progress, it would seem, must be very slow and gradual ; because there is so much to be known and experienced. The content of the perfect whole has to be apprehended bit by bit, and incorporated somehow in the consciousness of every living being. That at least is the view to which our general considerations appear to lead us. How in detail this is to be brought about, it is obviously impossible for us to describe ; but the general significance of the movement may be summarized in a few words.

Human history, it must be confessed, is apt to appear, on a first view, to be even more chaotic than the operations of material forces, even more chaotic than the lives of plants

and animals. Much of it at least looks like a confused fighting of kites and crows, rather than the unfolding of a divine idea. This may be explained, however, by the conflict of the upward tendency—what Professor Bergson calls the *élan vital*—against the disruptive tendency of those natural forces which operate within the province of life itself. There are traitors within the "realm of ends." Human life, as Aristotle represented it, is a struggle upwards from the merely animal nature to the rational or *quasi*-divine. Animal life itself would seem to be a somewhat similar struggle, on a lower level, upward from the purely vegetative, which again is something of a struggle out from the inorganic. The hyssop, according to Carlyle, grows in the wall because the whole Universe cannot prevent it from growing. We have to recognize, with Empedocles, that Love and Strife are at war throughout the whole of existence. In human life, however, the struggle is, to a large extent, a conscious one; and, for that very reason, is both larger and more intense. But, when we study it sympathetically, it appears to have a pretty definite meaning. It is a struggle to understand our world, and, by understanding it, to use it for the further development of our vital and spiritual nature. That struggle is clearly not an altogether unavailing one. The civilization that has so far been developed in our world is, no doubt, open to a good deal of adverse criticism. Perhaps, if it were not thus open, it might be time for it to come to an end, and give place to some other form of development. It must be confessed also that its advance is not a steady and regular one. Some of the finest civilizations seem to have perished, and left but little trace of their achievements. Yet it is on the whole true that progress is made; and that most of the results of past effort are either retained or recovered. What was best in Greece, Rome, and Judæa is still pretty easily accessible to us; and we are at least beginning to recover what was best in India, Egypt, and some other countries. It is thus not difficult to regard the life of humanity, in spite of breaks and backward eddies, as a continuously advancing tide. Some general features in this advance are also discoverable without any great difficulty. It must suffice here to refer to two of them.

The gradual transition from the dominance of natural law to the consciousness of human ends is the first thing that calls for notice. Primitive communities tend to be dominated by the past, but in a largely unconscious way; while their more conscious interests are concentrated, like those of animals, in the present and the immediate future. The growth of civilization has part of its value in enabling us to "take no thought for the morrow," and to give our attention to what is remote either in the past or the future, as well as to what is in its essence timeless or eternal. Thus we are able, in some degree, by understanding what is past, to free ourselves from its dominance; just as, according to Bacon, we may conquer Nature by understanding and adjusting ourselves to her inevitable tendencies. The cultivated man studies the past, not that he may be ruled by it, but that he may learn its lessons; and certainly, among its lessons, not the least important are those that are concerned with the apprehension of values.

Another characteristic of historical development, closely connected with the previous one, is the growing emphasis on individual freedom. The customs which bind upon us the fetters of the past are, in the main, social customs to which the individual is subordinated. At most the few, who have some understanding of their origin, may be said to accept them freely. As understanding becomes more general, the individual discovers his right of free judgment in the conduct of his thought and life, and learns to value himself as a person, at first somewhat in opposition to his society, but afterwards in close association and spiritual communion with his fellows. We are thus led to notice the significance of the individual life.

In the life of the individual we seem to find a gradual growth, broadly similar to that which takes place in the life of the community. The child finds himself bound by customs which he does not understand, and into which (unlike the lower animals, in general) he has to be gradually initiated. As he learns to understand them, he becomes more and more free from their dominance. He seems to be "born free"; but only becomes truly free when he feels and understands his chains. But there is this great difference between

the individual and society. Communities are immortal, in the sense that there is no definite limit to their persistence and growth; and, in fact, they seldom wholly perish; and the general ending of humanity is at least only a remote probability. Individuals, on the other hand, have pretty definite limits to the duration of their natural existence; and, even before they die, they generally cease to develop either outwardly or inwardly, and begin the process of decay. In spite of Cephalus and Rabbi Ben Ezra, there are few who can look with any satisfaction to the downward path in the later stages of individual existence. Hence we are brought back once more to the question of individual survival; and we have to ask how the general views that we have been considering bear upon this subject.

The conception of all life as the unfolding of a single life may seem to lead to a denial of the persistence of the individual life as such; and, in one sense, I think it does. It hardly permits such a hypothesis as that of the resurrection of the body; or even of the persistence of the individual person, with the same characteristics and limitations that belong to him as he is known by others, or even as he knows himself in his ordinary conscious experience. But it is not fatal to the conception of some form of individual survival. We have already noted that the conception of human immortality that is now chiefly current among reflective people, is that of what is commonly described as reincarnation. This can hardly be supposed to mean that there is some entity—a little self enclosed within the organic self—which passes from one body and enters into another, as the cruder forms of Animism appear to suggest. Real continuity of life would seem to be unintelligible except as continuity of conscious experience; and, as we have already noticed, our ordinary conscious experience is so intimately bound up with our organic existence, that it could hardly be supposed to be, in any direct way, transferred to another form of such existence. If we are really expressions of a larger life, it would seem that what we must suppose is rather that our ordinary consciousness is only a part of the larger consciousness to which we are related. It does not follow, however, that this underlying consciousness—the "subconscious self,"

as it is now usually called—is to be thought of as lacking individuality. In order that the individual life may have full significance, it would seem necessary to suppose that it is not to be regarded as a fragment, coming into being abruptly and passing out of existence with a similar abruptness, but rather as being in some way a rounded whole, a *βίος τέλειος*. We can perhaps best understand this by supposing that there are a succession of beings, all belonging somehow to a more comprehensive individuality that persists and develops throughout them. That individuality, however, would no doubt have to be supposed to be itself a fragment of a still larger whole; but we might at least conjecture that it would persist long enough to learn its essential relations to that larger whole, and to be prepared for a complete absorption in it. As we are here giving free play to speculative fancies, we may allow ourselves to imagine a hierarchy of spiritual existences, realizing themselves in successive stages, until the complete apprehension of the perfect whole is finally achieved. It is well known that some Oriental sages profess to have definite memories of previous existences with which their present lives are, in some intimate way, identified; and I understand that there are now a certain number in the West who claim to have had similar experiences. Such purely personal experience cannot be tested in the way in which facts open to general observation can be tested; and can, consequently, not be made into a very secure basis for philosophical theories; but, on the other hand, the statements of persons who seem in other respects intelligent and trustworthy cannot be lightly set aside. At any rate, we are not here dealing with doctrines that can be scientifically established, but only speculating on possible ways in which our Universe might be regarded as a real and vital part of a perfect Cosmos.

9. *The Conception of Eternity.*—It is now time to deal somewhat more fully with the positive conception of eternity, to which some of our previous discussions have led up. Eternity is sometimes taken to mean the infinite extension of time, both backwards and forwards. This may be a valid interpretation of it; but the difficulties in the way of such

an interpretation, which seem to me insuperable, have already been considered. Those who have at all fully realized these difficulties have generally met them by maintaining that time is essentially unreal, or that it has only a subordinate degree of reality. Eternity is thus understood to mean timelessness. It may be possible to interpret this in a way that is fully intelligible ; but, on the face of it, it seems to me to be an evasion of the difficulty, rather than a solution of it. It is certainly true that some important objects may be said to be timeless. Universals may be properly so described. Any judgment, in the sense in which we have interpreted that term, is independent of time conditions, except in so far as its subject-matter has reference to such conditions. Mathematical propositions, for instance, even when (as in dealing with motion) they contain explicit reference to time, are in themselves timeless. Nevertheless, it has to be recognized that time is a condition of the being of particular existent things, and, among others, of all conscious life ; and we have to ask whether there is any sense in which eternity can be ascribed to such objects.

Now, it is clear that there is a sense in which conscious life at least, though conditioned by time, may be held to transcend it. The sense in which this is true has already been, to some extent, noticed. Though the conscious life of an individual is conditioned by its own time process, and by the circumstances in relation to which its development takes place, there are other time processes on which it is not, in any similar way, dependent. A story or drama, as we have seen, has a time of its own, and yet may be an eternal object of contemplation for those who are interested in it. This is true of the great drama of human history, as well as of tales of a more limited kind. Human beings can, in the language of Plato, make themselves "spectators of all time and of all existence." Such an attitude, though it occurs at a particular time, may be rightly said to transcend the time series. There is a sense in which, in particular, the events of the past may be held to be as truly present to us as those that are occurring immediately around us. And this becomes increasingly true, as these events are more fully known and realized by us. An animal, or an un-

reflective human being, lives in the present, and looks forward to the immediate future. The more reflective mind looks before and after, and is profoundly affected both by what it remembers and by what it anticipates ; so that the present is hardly more real to it than the remote past and future. If this is true even of the reflective individual consciousness, we may well suppose that it would be still more emphatically true of such an underlying consciousness as we have been led to postulate. It does not, indeed, seem possible to think of such a consciousness as being wholly independent of time conditions. Any conscious experience, it would seem, must occur at some time ; and, in apprehending events, it would necessarily apprehend them as successive. But, if we suppose it to be creative, its apprehension of these events would, at the same time, be that which gave them being ; just as the consciousness of the author of a tale gives being to the characters that he imagines ; and, just as the being of the latter is eternal, so may be the being of the former. A consciousness of this kind must, however, be supposed to live in its creations, and would thus participate in the time order that belongs to them. We must think of the process, it would seem, as the continuous unfolding of a plan that has eternal significance and beauty, and that leads up to a definite end. The end would, presumably, consist in the full apprehension of the significance and beauty of the whole. The reaching of the end, it would seem, would imply a return to the beginning. The wheel would have come full circle. The order of before and after would be completed, and the completion would consist in the whole being apprehended as present. It would be at once the end and the beginning of the unfolding order, which in itself would be eternal.

> Self-found at last, the joy that springs,
> Being thyself, should once again
> Start thee upon the whirling rings
> And through the pilgrimage of pain.[1]

This is no doubt a difficult conception ; but it does not appear to be self-contradictory, once we realize that the order of before and after, though an aspect of reality, is not its only

[1] *Æ., The Veils of Mâya.*

aspect ; that, though the parts of the series of existence in time are transient, the series as a whole does not pass, but may be eternally retained. As retained, however, it would not simply be a series of passing events, but the series with its significance and beauty fully displayed and brought to perfect unity.[1] Music perhaps may help us to understand what is meant more fully than anything else. A piece of music has a movement of successive phases, all of which contribute to the significance of the whole. But the piece as a whole does not move. It contains time, but exists eternally. May not the Cosmos, like such a strain of music, be "never built at all, and therefore built for ever"?

10. *Solution of Some Ultimate Problems.*—We may now sum up briefly, with regard to the solution of some of those ultimate problems that seemed to stand in the way of the conception of a perfect Cosmos. We should be able to deal with them now in a somewhat less tentative fashion, though certainly still without any very dogmatic assurance.

It does not seem necessary at this stage to make much

[1] The view of eternity that is here set forth is, in some respects, more fully stated in the article "Eternity" in the *Encyclopædia of Religion and Ethics.* (See also the Note at the end of this chapter.) It is closely connected with the views that have been expressed by several other writers. Green's doctrine of an "eternal consciousness" is certainly near akin to it ; but I am doubtful whether he distinguished sufficiently between simple timelessness and the transcendence of time. Mr. Bradley's discussion of the possibilities of distinct kinds of temporal series is deserving of attention. See especially *Appearance and Reality*, pp. 211–12. Dr. McTaggart's arguments against the reality of time seem to me to be obviated by the recognition that what occurs in time is not altogether transient. The brilliant writings of Professor Bergson have helped to make this clear. Dr. McTaggart's conception of the possibility that a process in time may lead up to eternity is to some extent in harmony with the view that is here taken ; but he does not seem to me to make it clear how the transition is to be made ; nor is it easy to reconcile such a doctrine with the essential unreality of time. Time may be *aufgehoben*, or "put past" ; but what is to be put past has first to be there. See the two papers by Dr. McTaggart in *Mind*—"The Unreality of Time" (October 1908) and "The Relation of Time and Eternity" (July 1909). I may refer also to my own "Notes on the Problem of Time" (July 1912). Lotze's theory of timelessness (*Metaphysics*, Book II, chapter iii) is interesting, but rather inconclusive. It is like the attempt to crush the great Djin into a little jar. The *Iliad* in a nutshell is still the *Iliad ;* and so, however we may condense time, it continues to have its fundamental characteristic of before and after. Professor Pringle-Pattison, in his recent book on *The Idea of God*, appears to adopt a view substantially similar to my own. See Lecture XVIII. The doctrine of Plotinus is, I must admit, unintelligible to me.

further reference to the difficulties connected with the relation between the finite and the infinite. There does not appear to be any reason for thinking that any possible view that may be taken about infinity is incompatible with the conception of a perfect Cosmos. If there can be a real endlessness of existing things, perfection may very well be supposed to be realized in that endless being. Indeed, this would remove some of the difficulties that are involved in believing that there is some definite number of existing things; for it is not easy to assign a rational ground for any particular number.[1] But I am unable to conceive that there can be an endless number of existing things. It seems more reasonable to suppose that the number of existing things, as well as the number of real Universals, Kinds, Orders, Categories, or other ultimate determinations, is definite and limited; and that the infinity of the whole consists only in its rounded completeness.

With regard to Contingency, the appearance of this in our Universe may be regarded as arising from the downward path in the life of spirit, which involves disruption and a certain appearance of disorder. It need not be supposed that this necessarily implies any element of chance or arbitrary selection. There may be some intelligible reason even for the number of distinguishable things that come into existence. The Pythagoreans played with numerical conceptions in a rather fanciful way, and tried to attach special significance to particular numbers; and Plato has some similar fancies, though perhaps he did not intend them to be taken quite seriously. It may, however, be the case that certain numbers have a special place in the structure of reality. Three, for instance, may be held to have a special significance from the threefold movement of thesis, antithesis, and synthesis, even if it be allowed that the importance of this was exaggerated by Hegel. The three aspects that are generally regarded

[1] I may as well confess at this point that my general argument would be a good deal simplified if it were possible to adopt the theory of an infinite extension of existences (in the manner, for instance, of the doctrine that was so well expounded by Royce). But the difficulties set forth in the foregoing chapter seem to me fatal. From the pragmatic point of view, the adoption of the mathematical conception of infinity would be convenient. But, not being a pragmatist, I am bound to set aside any view that appears to contain a contradiction.

as characterizing our ordinary conscious experience, the three dimensions of empirical space, and perhaps some other instances, serve to show that this particular number has a certain prominence in fundamental aspects of the world of our experience ; and, in a more purely speculative reference, the three types of eternal value—Truth, Beauty, and Goodness—naturally occur to us, as well as the conception of a Trinity which, in some form or other, is apt to present itself in any attempt to conceive the unity of the Cosmos (the abiding One, and the Downward and Upward Paths in relation to it). Again, if there is a definite number of ultimate categories involved in the conception of a perfect whole, this number also would gain a special significance from that circumstance. But at such possibilities I can only hint. I mention them only to show that numbers need not be supposed to be all of equal importance in the structure of ultimate reality ; so that there might be some reason for the existence of a particular number of things, without the element of chance or arbitrary selection.

Change, again, seems to be adequately understood by means of the conception of the downward and upward path, which have to be thought of, as Heraclitus held, as being essentially the same—i.e. as forming a continuous movement —and as giving rise to eternal cycles, issuing from and returning to the attitude from which the perfect whole is apprehended. Such a view enables us to reconcile the conceptions of permanence and change. We may recognize, with Shelley, that

> The one abides, the many change and pass ;
> Heaven's light for ever shines, earth's shadows fly;

and yet we may also believe that these changing shadows have an abiding place in the eternal life of the whole.

Evil is similarly understood from the thought of the disruption of the whole, which seems to be a necessary antecedent to the process of its apprehension as perfect. Being a living whole, it is always in the making. Evil may thus be thought of as existing in the partial manifestation, but annulled in the complete issue ; and annulled, not merely for the whole, but for every distinguishable conscious centre

that enters into the process. From this point of view, we may even be able to hold, with an imaginative and somewhat mystical writer,[1] that "what we call evil, is the only and best shape, which, for the person and his condition at the time, could be assumed by the best good."

It certainly appears that some such view as that now indicated has to be taken by any one who tries seriously to think of the universe as a perfect whole; and to some extent it seems to be recognized both by philosophical thinkers and by religious teachers. Mr. Bradley states[2] that in the deeper religions it is held "that all evil is really overcome." Edward Caird, referring more particularly to Christianity,[3] speaks of it as containing "this certainty of ultimate triumph, this combination of the despair of pessimism with an optimism that overreaches and overpowers it, nay, that even absorbs it as an element into itself." Dr. Bosanquet, commenting on this last passage, observes[4] that "the words 'the certainty of ultimate triumph' seem literally to indicate some reference to a future event or attainment. If they are to be so taken, the present argument could not endorse them. For it the triumph is in the Absolute, and the total expression of it within the temporal series is inconceivable. Nor can we suppose that all which is to come within that series is nearer to perfection than anything which has gone before. . . . It remains solid ground that the security of the finite is fully to recognize its own nature, and that in this recognition a given self-conscious race must naturally tend to advance." But, if the view of time that has now been indicated is a tenable one, it would seem that, though it may be allowed that "the total expression" of such a triumph "within the temporal series is inconceivable," and that the future is not always in itself nearer to it than the past; yet we may hold that there is a real sense in which there is an advance towards it, not merely "in a given self-conscious race," but in the general history of the world and of the lives of individuals.[5] Perhaps it might even be added

[1] George Macdonald, *Phantastes*, at the end.
[2] *Essays on Truth and Reality*, p. 459.
[3] *Evolution of Religion*, vol. ii, p. 109.
[4] *Value and Destiny of the Individual*, p. 326.
[5] See also the Note at the end of the present chapter.

that it is of the essence of a perfect whole that the parts cannot be satisfied to remain as parts, but strive continually to reach the whole; and that this striving towards the whole is the secret of the time-process and of its stormy longing. Such a striving may be an essential element in "the fuller and more difficult kind of beauty." [1]

Hume, after dealing with the chief objections to his theory of space, remarked: "Thus I seem to have answered the three objections above mentioned; though at the same time I am sensible, that few will be satisfied with these answers, but will immediately propose new objections and difficulties." I must confess to a somewhat similar feeling with regard to the answers that I have here set forth. In dealing with the ultimate problems of reality, one is in constant danger of falling, according to one of Plato's phrases, into "a bottomless pit of nonsense"; and it may well be that I have not escaped from such a pit. But it must be remembered that I am not pretending to give answers that can be accepted as complete and final, but only to furnish some ground for believing that the difficulties need not be regarded as altogether insurmountable. And I trust at least that I have not minimized the difficulties, or suggested answers that are merely verbal or that are intrinsically absurd. Whatever the right solutions may be, they cannot be easy ones.

NOTE ON THE ABSOLUTE AND THE TIME-PROCESS

The exact significance of the view of the time-process that has been set forth in this chapter calls for some further exposition, especially in its bearings upon some recent conceptions of the Absolute. As it has obviously some affinity with the idea of a time-cycle which is specially associated with the theories of the Vedantists and with those of such modern writers as Schopenhauer who have connected themselves with the Vedantist teaching, it may be well to begin our statement with some reference to their doctrine. Unfortunately, I cannot lay claim to any first-hand acquaintance with Oriental speculation; and what I state here may be a very imperfect and inaccurate representation of their way of thinking. The following passages, however, from an article on "The Vedantist Absolute" by Homo Leone in *Mind* (January 1912) may serve at least to indicate their general attitude.

[1] This phrase is from A. C. Bradley's *Oxford Lectures*, p. 234.

"Regarding God the Vedanta says that He is the 'first existent from' the Absolute, coming 'out' from That, as it were, from a state of 'slumber' in that, coming into actuality from a state of potentiality. He is the 'this,' a system or cosmos, a whole of consciousness-matter-and-energy, which is the evolving, changing world of space, time, etc., of our consciousness. He is the God or Ruler of popular theology. In His true nature, however, He is the Absolute."

"By His power of Maya (Daivi Prakriti), the one divine energy of His, He multiplies Himself, 'sacrifices' Himself for a universe, becomes more and more explicit. This process must be a limited one; for becoming manifest means well-defined and hence limited. This process of becoming manifest or externalized is called Pravritti or forthgoing; and correspondingly we have Nivritti or indrawing. This completes the cycle of His universe; for Vedanta believes in cyclic evolution—slumber and wakefulness, to use certain graphic symbolic metaphors."

The general view thus set forth seems to rest on the antithesis between the ultimate unity that is expressed by the term Brahman and the world of Maya—an antithesis very similar to that made by some recent writers between Reality and Appearance. The Vedantists, as I understand them, arrive at this antithesis by the following line of thought. They start from an argument somewhat similar to that of Descartes, with regard to the reality of the Self as having a greater degree of assurance than that of the objects that it apprehends. But, while Descartes identifies the self with the conscious person in the act of apprehending objects, they seek more definitely to separate the pure self from all the content of our conscious experience. Hence they direct special attention, not to the self as presented in our waking life or in the consciousness of dreams; but rather to the self as it may be supposed to exist in dreamless sleep, when no particular objects are apprehended by it. In this state, they urge, it is simply aware of itself; and they conceive that in this pure contemplation (or rather enjoyment —to adopt Professor Alexander's antithesis) there is to be found a certain peace and felicity that cannot be gained from the apprehension of any objects either in dreams or in our waking experience. As, however, there is really nothing to distinguish one such self from another, they regard the distinct existence of such conscious centres as essentially illusory, and contend that ultimate reality is to be sought only in the one eternal being called Brahman. We apprehend reality and gain perfect happiness by identifying ourselves with this being, rather than with our individual conscious centre. All else is, in a certain sense, illusion or mere appearance. But the illusion has to be accounted for; and they explain it as

due to the activity of Maya,[1] which issues somehow from Brahman and produces a sort of dream-existence. This dream is the time-cycle, which eternally repeats itself, and which is the source of our ordinary experience of the world. The great end of life is to escape from this dream or illusion by identification with Brahman, a difficult process which is only brought about through successive reincarnations.

The chief objections that may be brought against this way of thinking appear to be the following :—

1. The state of dreamless sleep is assumed to be a conscious state. This assumption seems to rest, at least partly, on a rather obvious fallacy. We are said to be "conscious of nothing," when it would seem to be more correct to say that we are "not conscious of anything." The pure self-consciousness of which they speak is rather like the pure Being of Hegel, which cannot be distinguished from non-entity.

2. The felicity that is supposed to be enjoyed in deep sleep is also assumed without sufficient evidence. No doubt deep sleep is, in general, refreshing. We may anticipate this with pleasure, and enjoy the consciousness of it when we wake. But this hardly entitles us to say that there is actual enjoyment in the sleep itself. It may be true, however, that there is a sort of subconscious enjoyment; but that would seem to belong rather to the organism than to the conscious subject. Perhaps this is what is intended; but, if so, it does not seem to be made clear.

3. The conception of Brahman, being apparently reached by reflection on the pure self, shares in its negative character; and, though said to be the whole of reality, hardly seems to be distinguishable from non-entity.

4. If Brahman is seriously to be described as the only reality, it is hard to see how there can be any intelligible explanation of the world of appearance. The distinction between Brahman as such and other activities described by such terms as Maya seems to introduce a surreptitious Dualism or even Pluralism, which can hardly be reconciled with the emphasis on the absolute One.[2]

[1] There are considerable complications at this point, which cannot be adequately discussed here. I understand that in some of the earlier writings on which the teaching of the Vedantists is based, Maya is more definitely represented as the creative aspect of Brahman, and not as the source of anything that can properly be described as illusion. Such a view would of course bring the doctrine more nearly into harmony with that with which I am contrasting it.

[2] Professor Deussen has an easy way out of this difficulty. "The fact is," he says, "that we are here in ignorance, sin, and misery, and that we know the way out of them, but the question of a cause for them is senseless." See his account of the Philosophy of the Vedanta at the end of his *Elements of Metaphysics*, p. 334. In a certain sense of the word "cause," this way of escape may be

5. If the world of Maya is properly to be described as a dream or creation or emanation of Brahman; and if Brahman is to be regarded as an absolutely perfect being, in the contemplation of which we attain felicity; it would seem that the dream of such a being, even if in some sense illusory, must at least have a real significance, and be the expression of some essential aspect of the life of Brahman.

6. If it is our supreme end to identify ourselves with Brahman, this must surely mean that we appropriate his dream as well, and appreciate its significance.

7. It would seem to follow from this that the pessimistic view about the world of our experience, which seems to be inseparable from such a conception of the Absolute as that which is set forth by the Vedantists, ought to be eliminated.

With reference to this last point, it may be well to notice that some of them have attempted to meet it. The following passage from one of their recent publications[1] may serve to illustrate what is here meant:—

"The system of Vedanta is often stigmatized as pessimistic. Even Schopenhauer is held up to contempt because his views are Vedantic. That Vedanta is not pessimistic will follow from a consideration of the following. Firstly, a person waking from dreamless sleep does not point back to a painless nothing, but to positive bliss that he experienced. Secondly, the kinds of pleasure and pain that are condemned by Vedanta as leading to bondage are only such as spring from egoism. Besides positive pain in this life, which every one would wish to avoid, the pleasures which appear as such only when restricted to individual experience are themselves sources of pain, and therefore a form of pain, since their cessation or diminution leads to misery. But the higher pleasures which we all experience on rare occasions, such as when

legitimate, but surely there must be some means of making the existence of a world of illusion intelligible. It is of course true that there are somewhat similar inexplicabilities in many other philosophies. Green, for instance, has to confess that "the old question, why God made the world, has never been answered, nor will be. We know not why the world should be; we only know that there it is. In like manner we know not why the eternal subject of that world should reproduce itself, through certain processes of the world, as the spirit of mankind, or as the particular self of this or that man in whom the spirit of mankind operates. We can only say that, upon the best analysis we can make of our experience, it seems that so it does" (*Prolegomena*, § 100). But Green's whole philosophy is of a much more tentative character than that of the Vedanta. When people set forth dogmas, one is entitled to ask that they shall be coherent.

[1] *Panchadasi of Vidyaranya*, by M. Srinivasa Rau and K. A. Krishnaswamy Aiyar (with English translation, notes, etc.), p. 213. This book seems to me to contain one of the clearest expositions of the general attitude of the Vedantists with which I am acquainted.

surrounded by beautiful scenery or in the presence of a beautiful painting or sculpture, being not tinged with individuality, partake of the nature of that inconceivable bliss which the emancipated, both here and hereafter, ever experience. Professor Deussen, in his *Elements of Metaphysics*, says 'that positive delight of æsthetic contemplation is to us a warrant that beyond individuality there is not a state of painless nothing, but a state the exuberant bliss of which cannot be compared to any earthly state.'"

But why not include the delights of love and friendship, social and national service, philanthropic effort, scientific inquiry, beneficent invention, and, in general, all human activities that are not selfish? Is it because they are "tinged with individuality"? If everything that is so tinged is to be rejected as evil, it does not seem altogether unfair to say that the attitude towards all normal human life is a pessimistic one. Still, such a passage as this shows at least that some attempt has been made to escape from a purely negative attitude towards the world of appearance.

It would seem also that the doctrine of "Degrees of Reality," with which we are familiar in Western thought, is used to bridge the gulf between appearance and reality. In the same work to which reference has just been made, the following passage occurs (p. 225):—

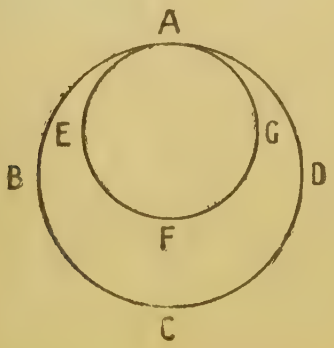
"According to Vedanta there are three grades of reality, the highest pertaining to Brahman (called Paramarthika Satta), the second being the experience of the wakeful state, and the third the experience of the dreaming state and of the illusions of the wakeful state. It is evident that a tiger which one meets with in a dream can be killed only with a spear seen in the dream also. Any number of spears lying by the side of the dreamer, *although they belong to a higher grade of reality*, can never help him in an encounter with the tiger in the dream. Similarly, Pure Consciousness or Brahman, which is the highest reality, can never affect anything else: for if it were able to affect anything else, there would be a relation established between them, which again would lead to duality."

To this it may be enough to answer that there is a very close relation between our dream experiences and those of our waking life. Most dreams can be accounted for by the experiences of our waking life. If there is no similar relation between our waking life and the universe of Brahman, it would seem that the distinction between the first grade of reality and the second is different in kind from that between the second and third.

These references may help to bring out the difficulties that are involved in any attempt to make a sharp division between appearance and reality, and also that the difficulties are rather

evaded than solved by the doctrine of grades of reality. The difficulties appear in a more acute form in the system of Vedanta[1] than in the doctrines of Plato and of more modern writers. But they appear to me to be present in all theories of this type; and the view put forward in this book is an attempt to remove them by the definite recognition of the world of appearance as an aspect of reality. This is done by conceiving the time-series as an eternal cycle. It is, however, very difficult to make the significance of this quite clear. Perhaps the use of a diagram may help to explain it.

Let the circle ABCD represent Brahman, or by whatever other name it may be best to call it; and let the circle AEFG represent the time-series, or the world of Maya. By a slight modification of



the meaning of some terms that are used by Plato, they might also be called the circle of the Same and the circle of the Other. Or we might say that ABCD represents the universe of Parmenides, and AEFG that of Heraclitus; or again, to give a more modern

[1] It may very well be, of course, that the doctrines of Vedanta justify a more positive conception of the relation between the Absolute and the time-process than that which has been indicated above. The article on the subject by S. Radhakrishnan in the *International Journal of Ethics* (vol. xxiv) urges strongly that they ought to be interpreted more positively, i.e. that the time-process should be treated as a real aspect of the life of Brahman. I am quite unable to judge about this; but, so far as I can see, there appears to be some ambiguity in the doctrines, very similar to that with which we are acquainted in some Western theories. This ambiguity is not to be ascribed to the perversity of philosophers, but rather to the intrinsic difficulty of the subject. It may be partly, but I think not wholly, accounted for by the distinction between an exoteric and an esoteric interpretation See on this Deussen's *Elements of Metaphysics*, pp. 324–5.

reference, that ABCD is the Absolute as conceived by Mr. Bradley, and AEFG as conceived by M. Bergson.

What is here contended is that AEFG may be regarded as a real process, but as only a part of what is included within ABCD. It is a moving reality, issuing from the larger unity and returning into it. AEF would be the "downward path" of Heraclitus, and FGA the "upward path." This would be a real time-process, just as there is a real time-process in the evolution of a drama; but, from the point of view of ABCD—i.e. *sub specie æternitatis*—it would exist eternally, just as the whole evolution of a drama may be present to the mind of its author. We might express this by saying that the movement of AEFG repeats itself continually; but this would be only another way of saying that it exists eternally within ABCD. The illusoriness of the world of Maya would consist in its apparent transitoriness. What is past, at any particular point, seems to have disappeared; but in reality, as M. Bergson contends, it is carried forward, so that at the point A it would all have become present and might be regarded as evolving itself anew.

If such a view were adopted, it seems clear that the content of the circle ABCD, other than what is included in AEFG, would be rightly described as unknowable by us. It might have some time-movement of its own, different from that of AEFG; just as the author of a drama has a development of his own, different from that of the drama. Or there might be many time-movements within it; just as an author may produce many dramas, each containing a different time-process.

It is evident also that such a conception enables us to give a philosophical interpretation to the doctrine of the Trinity. ABCD might be said to represent God the Father. God the Son would be represented by AEFG, so far as the process is an individualizing one, giving rise to the existence of separate things and persons. God the Holy Ghost would be the aspect of unification in AEFG, showing itself in the recognition of the spiritual community of persons, and eventually in the consciousness of unity with the whole. But we need not dwell on this. We are not here specially concerned with possible theological interpretations.[1]

It may be that the view which has thus been indicated is not really different from that contained in the Vedanta philosophy. What seems to be chiefly defective in the latter is the lack of a

[1] It is of course obvious that geometrical figures cannot adequately represent such conceptions as they are here used to symbolize. It must be recognized, for instance, that the downward and upward movements are to a large extent concurrent. Progress takes place in waves, rather than in a continuous flow. It is to be noted also that it is only the *circumference* of the inner circle that represents movement.

definite conception of the Holy Ghost—i.e. of the social unity of mankind. The modern philosophy of Positivism, on the other hand, takes this as the only conception of the divine. A unification of these two might lead to a complete view of the significance of human life. Whether we can ever have a complete view of the significance of the Cosmos is more open to doubt.

This interpretation of the doctrine of the Trinity is, of course, somewhat different from that which has been commonly set forth; yet I am not sure that it is greatly different from the interpretation of some of the best Catholic theologians.[1] It may perhaps be worth while to point out that the view of time that I have here attempted to expound, enables us to interpret some other conceptions of current religious beliefs in a somewhat similar fashion. If, for instance, the time-process is rightly regarded as eternally existing, there is at least some foundation in this for the doctrines of Heaven, Hell, and Purgatory—not indeed, in the form in which they are represented in Virgil's *Æneid* and Dante's *Divine Comedy* (the latter of which at least was pretty obviously intended to be symbolic), but rather in that which is suggested by Browning in *Ferishtah's Fancies*:—

> No punishment like knowledge!
> . . . . .
> Each word of his I lightly held, each look
> I turned from—wish that wished in vain—nay, will
> That willed and yet went all to waste—'tis these
> Rankle like fire. Forgiveness? Rather grant
> Forgetfulness!

Referring to the loss and pain involved in such experience, Browning adds:—

> That I call Hell. Why further punishment?

If time is eternal, such experiences may rightly be said to be eternal. Heaven would have a still more obvious eternity; and surely the whole process of human life—in this "vale of soul-making"—is Purgatory. It is probable that the leading ideas of all the great religions have some similar foundation in the facts of human experience. But these are only casual suggestions.

[1] Probably the best interpretation of the Christian doctrine of the Trinity in recent times is that given by J. Caird in his *Fundamental Ideas of Christianity*, Lecture III. Even Mr. Wells, who is a believer in the finite God, seems to recognize three aspects in his Absolute—the Veiled Being, the Life Force, and the Invisible King.

CONCLUSION

GENERAL RESULTS

1. *Summary of Argument.*—The general line of thought pursued in this book is, I hope, sufficiently clear, and does not call for any further exposition or enforcement. But it may be worth while to give a brief summing up. It is an attempt to provide a constructive doctrine on the main problems of philosophy, without the assumption of any ultimate dogmas, though not without guidance by previous speculations. In making this attempt, we began with the consideration of the minimum of implications that seem to be involved in the formation of any belief at all, or, in other words, with the maximum of concessions that can be made to the sceptic. On this basis, we were gradually led to an analysis of the most fundamental conceptions that are used in the attempt to enlarge our knowledge, and that are tested in the constructive work of the particular sciences. The attempt to enlarge our knowledge was found to mean the attempt to think of our universe as an intelligible whole, or as part of an intelligible whole ; and the consideration of what is implied in the thought of an intelligible whole brought us to the conception of an absolutely perfect Being, *in seipso totus, teres atque rotundus*. We tried to see, as definitely as possible, how such a Being is to be conceived, and how such a Being may be supposed to be related to the universe of our ordinary experience and to the main aspects of human life. We were thus led to the fundamental conception that seems to underlie the religious attitude towards the universe. It may be well now to take some further note of the general bearings of our results, with special reference to their relations to religious conceptions, and to the more practical problems of life. But first we ought to consider how far the results at

which we have arrived can be regarded as definitely established.

2. *Hypothetical Character of the Results.*—It must at once be admitted that the results arrived at are of the nature of hypotheses, the justification of which can only be found in the extent to which they furnish us with an intelligible interpretation of the universe in which we find ourselves. Such hypotheses are obviously not capable of being tested in quite the same sense in which ordinary scientific hypotheses can be tested; and yet, in view of their supreme importance, we should naturally wish that they should be even more rigorously established than many scientific hypotheses are. We cannot ask whether we are appealing to *veræ causæ*; for there is no other way at present known, and hardly any way conceivable, in which the reality of such explanatory principles could be established. There might no doubt be a special revelation; but, if the general view that we have taken is correct, a special revelation would seem to be improbable. It is conceivable that our hypotheses might find some support from certain kinds of empirical evidence. The investigation of occult phenomena is now regarded by a considerable number of people as a hopeful means of gaining fresh light on aspects of the universe that are not commonly open to observation; but, for the present at least, it does not appear that such investigations have proceeded far enough to furnish us with any reliable guidance. If we are right, however, in thinking that the universe revealed to us by sense-observation is only a small part of the Cosmos, it would seem to be at least probable that there may be other modes of apprehension. If it should appear that there are none, our hypotheses would not be disproved, but they might be somewhat discredited. But to prove such a negative would certainly not be easy. Apart from such empirical evidence for or against the views at which we have arrived, the only test, it would appear, is to be found in their intelligibility and explanatory power. Even in these respects some weakness must be admitted. We have not been able to give any quite intelligible account of the content of the conception of perfection, and consequently cannot be quite sure that it is either fully intelligible

in itself or fully capable of explaining the universe as we know it. In this respect, it may be urged, that we are not any farther forward than Plato was; except that, on our theory, the reason seems rather more apparent for our failure to attain to any complete grasp of the form of Good. We can at least, in Kant's phrase, "comprehend its incomprehensibility." According to the view of the Cosmos that we have been led to take, it would be unreasonable to expect that, at our present stage of development, we should be able to have any complete apprehension of the principle by which the whole is to be explained. Rather we may count ourselves fortunate if we can "see it darkly," or even if we can only point to the direction in which it is to be sought. Our position is, consequently, to a certain extent, one of Agnosticism. But on this it may be well to make some further observations at the present point.

3. *The Limits of Agnosticism.*—If we admit that our position is one of agnosticism, it is at least important that it should be distinguished from such an agnosticism as that of Kant, on a somewhat imperfect understanding of which that of Spencer and others appears to be based. Kant's general contention is that we can know our universe, so long as we are content to take it as a partial construction, dependent on the use of our limited human faculties; but that it becomes unknowable, as soon as we attempt to comprehend it as a whole. Hence our knowledge is not merely limited, but definitely bounded.[1] We can make a sharp distinction between what is knowable and what is unknowable. Now, in the light of our previous discussions, it would seem that this general view is untenable. It rests upon several misconceptions, to which reference has already been made. Kant's general view was that knowledge has its beginning in the reception of disconnected data of sense, which are then placed in definite order by means of the two great forms of space and time, and afterwards further determined by the application of categories derived from the forms of judgment (the constructive imagination supplying the connecting link between these categories and the material to which they have to be

[1] See Kant's *Prolegomena to every future Metaphysic*, § 57.

applied). In this way a definite human universe is built up. But our reason demands a more perfectly co-ordinated whole. The antinomies show that this demand cannot be met with reference to the universe that we know by means of sense-perception; and the discussion of rational theology enables us to see that no theoretical basis can be found for the apprehension of supersensible reality. For any further insight we must be satisfied with a faith based on moral needs and the feeling of beauty and organic unity, neither of which can yield us any definite knowledge.

Now, according to the view to which we have been led, it would seem rather that our knowledge has to be regarded as being, from the first, an apprehension of a connected world, our particular experiences being bound together by universals and definite orders, which, however, are only gradually made explicit. According to this view, the antithesis which Kant makes between perception and conception is too sharply drawn. What we apprehend perceptually contains implicitly the system of relations that is made explicit in our conceptual apprehension. It remains true, however, that it requires a long and difficult process to unfold the implications of our experience; and that the process becomes increasingly difficult as we advance from the simpler to the more complex orders. The larger hypotheses are, in general, more difficult both to apprehend and to establish than those that are concerned with more limited aspects of experience. The building up our knowledge may be compared to the construction of a child's picture-puzzle. The picture is there, but it comes to us in fragments, the place of which within the whole is not at first apparent. We are guided, in the growth of our knowledge, by the conviction, which tends to become stronger and stronger as we proceed, that the universe with which we are dealing does form a connected picture, and we are gradually discovering more and more definite relations among its parts. We are thus led to go on, from point to point, in the hope that a perfect picture will be constructed in the end. But we cannot really see the picture until it has been built up, though we may, to a certain extent, anticipate it. To this constructive process there appears to be no real reason for assigning any bounds. Our

human knowledge is limited, and probably will always remain limited; but it does not appear to be possible to set definite bounds to it. In forming the conception of a Cosmos, however, we are trying to anticipate the completed whole; and it may certainly be asked what right we have to do this, and even what right we have to believe that there is any complete whole for us to discover. Perhaps, in the strictest sense, we have not a right to believe this; but it would seem at least that we have a right to hope for it. On this some further observations may here be in place.

4. *The Right to Hope.*—Most of those who have adopted agnosticism as an intellectual position, have taken refuge in some form of faith. This is notably the case with Kant. He urged that we have a right, and even that we are bound, on moral grounds, to believe a great deal that can neither be proved nor made intelligible or even self-consistent. Certainly, if we were to adopt his point of view, we should be confronted with a difficult problem in casuistry—whether it is better to sacrifice our intellectual honesty or our moral purpose. And it would not be easy to estimate the extent to which the unity of men's spiritual life in modern times has been blighted by the more or less definite consciousness of this problem. It is important, therefore, to urge that the problem—at least in that particular form—is an unreal one. The fundamental difficulty in Kant's philosophy depends upon the antinomies. If we allow the force of these, it seems impossible to form any intellectually coherent view of the universe as a whole. Some have sought to meet them by urging that there is no real difficulty in the infinite process that is demanded by one member in each of the antinomies. This may be a satisfactory solution; but we have given some grounds for doubting whether it can be so regarded. We have, however, also given some grounds for believing that the difficulties in the way of the acceptance of the opposite alternative in each case can be removed. We are thus not bound at least to regard the universe as a whole as implying any absolute inconceivability; and we may believe it to be a coherent whole without any sacrifice of intellectual honesty. But, even if it is thought that such a belief cannot

be intellectually justified (and it must be admitted that it is not free from difficulty), it does not appear that we should be under any moral obligation to accept it. It is true that the moral life would be robbed of some of its inspiration if we were not able to believe that, in trying to realize the best that we know, we have the co-operation of the most deeply seated tendencies of the universe. But, even without this conviction, it would seem that we should still be morally bound to pursue the best that we know. There is even a certain sublimity in a moral attitude such as that described by Mr. Russell,[1] in which the pursuit of what is good is not accompanied by any hope of final achievement. It may be admitted, however, that so sublime an attitude is not easy to maintain; and it is, consequently, rather desirable at least that the belief in a perfect universe should not be shown to be wholly unfounded. If we cannot entirely justify the belief, it is at least to be desired that we should be able to justify the hope.

Spencer's attitude is, in some respects, similar to that of Kant. He maintained, like Kant, that the reality behind appearance is unknowable; and held also, like Kant, that, though we cannot know it, we are entitled to regard it as deserving of worship. It was not, however, on definitely moral grounds that he justified this belief; and, indeed, it is not easy to explain precisely on what grounds he did justify it. It would seem that he did not really hold that it is unknowable, but only that it cannot be completely known. He apparently thought that we know it sufficiently to be able to entertain a partially optimistic view with regard to the general course of the universe. The course of our argument has led us to a similar conclusion; but it is hoped that the grounds on which it is based have been made more explicit.

Reference has already been made to the claim of William James that we have a right to believe whatever we find serviceable as a working hypothesis in the carrying on of human life; and it has been suggested that, if he had been content to claim the right to hope, his contention would have been less open to criticism. It is a familiar common-

[1] *Philosophical Essays*—"The Free Man's Worship."

place, that the human attitude is essentially one of hope. All science has been built up through the inextinguishable hope that a more and more complete order can be discovered in the facts that we apprehend; and progress in practical affairs is inspired by a similar conviction. The justification for such hopes rests primarily on the fact that so many of them are, as a matter of fact, fulfilled. Sometimes, indeed, their fulfilment gives us but little satisfaction. "Was man in der Jugend wünscht, hat man im Alter die Fülle." This is no doubt partly due to the fact that the fulfilment seldom presents itself quite in the form that we had desired; but partly at least it is due to the opening up of larger hopes, which make the realization of the earlier ones seem puny. Now, it is always abstractly conceivable that we may reach a point, either in our search for truth or in our efforts after human perfection, at which we shall find an absolute bar to the realization of any further hopes. But, at any rate, it is hardly reasonable to believe this—so long at least as we are able to anticipate, even dimly, the conditions that would be implied in the complete fulfilment of our hopes, and can see no definite reason against their realization. Of course, there are difficulties in the way of such an anticipation. It is not easy to sketch any Utopia which it would be really satisfactory to live in; for to live is to strive, and the Utopias of which we dream are states in which strife is at least largely at an end.[1] It is at least equally difficult to form any definite conception of a Cosmos which is intellectually satisfactory. This is partly due to the fact that the human attitude is one of search; so that, as it has been said, if we held truth in our hands, we should be tempted to let it go for the pleasure of pursuit. This, however, need not be taken to mean that the search for truth is better than its possession, or the struggle for Utopia better than its realization. But perhaps it does mean that, in either case, the achievement would imply the end of any mode of existence that could be regarded as properly human. J. S. Mill tells us, in his *Autobiography*, that he was at one

[1] See Mr. Russell's *Principles of Social Reconstruction*, p. 130: "Desire, activity, purpose, are essential to a tolerable life, and a millennium, though it may be a joy in prospect, would be intolerable if it were actually achieved."

time greatly troubled by the thought of what life would after all be worth if all his dreams came true. It is a somewhat disquieting thought; but at least it is not one that need greatly afflict us at present. The consideration of this, however, may somewhat reconcile us to the attitude of hope, rather than of assured belief.[1] And we have seen already that, even in trying to think of the Cosmos as a whole, we seem forced to think of it as a moving whole, in which the end would bring us back to the beginning; so that it never really ceases to be a search and a striving.

Now, it is no doubt true that even hope implies a certain degree of belief. It involves the belief that what we anticipate would be good, and that there is no inherent absurdity in its pursuit. That this is the case with regard to the conception of the Cosmos, it was our chief object to make plain. We have urged that it can only be made intelligible by thinking of it as constructed in accordance with the idea of perfection and that such a thought is neither inconsistent with itself nor with what we know of the structure of our universe. If this much is allowed, we certainly seem to be justified in entertaining such a degree of belief as is necessary to constitute a definite hope—perhaps even a little more. For it hardly seems possible to form any other clear hypothesis with regard to ultimate reality. If we have an intelligible hypothesis, and there is no other intelligible hypothesis, except that the universe is unintelligible, we seem to have almost established a right to believe that our hypothesis is true. At least we may hope, with some confidence, that it is so. Hope is, on the whole, the essentially human attitude. We may have the right to feel certain that $2 + 2 = 4$; but, in most other things, we are only able to frame more or less probable hypotheses, which we hope may turn out to be satisfactory explanations. We seem to have a right to construct such hypotheses with reference to the universe as a whole, as well as with respect to particular aspects of it; and in this case also we may hope that we have found an explanatory principle. "We live by admiration, hope, and love"; and the more scope we can find for these atti-

[1] What Mill wrote on this subject is still worth reading. See *Three Essays on Religion*, pp. 244–57.

tudes of mind, the more fully are our lives sustained and strengthened. So far as this is what is meant by pragmatism, I believe it is justified. We have the right to the necessary conditions of the best kind of life; and hope is one of them; but we have not the right to affirm as true what has not been fully established.[1]

5. *The Duty to Strive.*—The right to hope, like other rights, is the counterpart of a duty. It has been urged, as we have seen, that to believe means essentially to act. This does not appear to be strictly true, except in the sense that the judgment that is affirmed in belief is definitely chosen; and choice is no doubt an act. Apart from this, it would seem that a belief may be purely contemplative. But to hope is to act in a more definite sense; for it implies that we have not yet achieved what we regard as good. It contains not merely choice, but the tension of desire. It is an attitude of striving. The right to hope for what is seen to be good is the counterpart of the duty to strive for its realization. This may, indeed, be fairly held to be the ultimate foundation of all duty.

Now, it has sometimes been urged that a definite theory of the perfection of the Cosmos, such as that of Spinoza or Hegel (few would venture to affirm it of Plato), has a certain tendency to check human striving. If the theory were regarded as a fully established creed, there might be some force in this contention. Some Oriental religions do certainly appear to be open to the charge. If we thought that we possessed the whole truth, there would be no more room for search. If we thought that the Cosmos was perfectly good, without the need of our special contribution to it, there would be no room for effort. But obviously such a conception as that here set forth does not involve either of these results. From the point of view here taken, it is only by a great effort that we can attain to even an imperfect guess

[1] It may of course be urged that when we hope we act as if we believed; and those who think that the essence of belief consists in action may consequently maintain that it is right to say that we do believe. But I have already urged in Book I, Chapter II, that belief ought not to be thus interpreted. I am ready to admit, however, that when we adopt any hypothesis as probable, it is correct to say that we believe it provisionally. We have already seen that there are degrees of belief.

at the ultimate truth about the universe; and, if we are to think of it as perfect, it is a perfection that exists only in so far as it is incessantly created. It may be true that, if we had a more complete insight, we should hardly be able to adapt ourselves to the human attitude of effort; just as, if animals had such insight as we possess, they could probably not be content to follow their instincts. The kind of insight that each being possesses is probably adapted to its mode of action. A wise man will be cautious in his actions; but, if he ceases to be eager, he is surely not as wise as he might be. The creeds that tend to crush out human endeavour are those that teach the possibility of identification with the perfect whole at a single step. This was, to some extent, the creed of the Stoics, as well as of some Eastern sages; but it is obviously not the view that connects itself with such a doctrine as that which is here set forth. Though it seems to be true, as we have already noted, that we cannot form any real conception of an ultimate Utopia that would satisfy all the aspirations that are implied in human endeavour, yet it is obvious enough that there are many ways in which the general conditions of life might be greatly improved—e.g. by the more complete understanding of natural forces, and their more perfect adaptation to the satisfaction of human needs; by the communal control of the chief necessities of life (education being recognized as one of the most important of these); by breaking down the sharp antithesis between town and country[1]; by the equalization of the acknowledged rights of the sexes; by the union of the conflicting religions of the world on a genuinely humanitarian basis; by the introduction of constitutional methods of government in all States; by the establishment of a strong organization for the maintenance of international peace; perhaps also by the adoption of an international language for diplomatic and other public purposes; and by a variety of other methods. When some such improvements as these have been accomplished, other possibilities will no doubt have become apparent. It would evidently be absurd to rest content with the view that, if these things are contained in the plan of the universe, they

[1] See on this *Cities in Evolution*, by Professor Geddes.

will come of themselves. If anything can be regarded as certain in human life, it is surely that nothing is in the plan but what is brought about by strenuous effort. If we are saved by grace, it is by a grace that works through us.[1] Even if we are to have another life elsewhere, it seems probable that, in Browning's phrase, we shall still have to fight on "there as here." But some reference at this point to the relation of our philosophical theory to the great religions of the world may perhaps help to guard against the misconception that is here noted.

6. *The Religious Aspect of Philosophy.*—It is not my object here to consider the degree of truth or error that is contained in any particular religion, nor even to try to determine what is essentially involved in the religious attitude.[2] But it is evident that the ideas set forth in any attempt at a philosophical construction have an intimate bearing on those that lie at the foundation of religious beliefs; and some reference to these bearings appears to be called for at this point. Aristotle characterized his First Philosophy as Theology; and it is very apparent that the development of Christian Theology has owed much both to his teaching and to that of Plato. Religion, however, is not the same as Theology. Some of the most influential of the world's religions can hardly be said to contain any Theology; nor does it appear that theologians are necessarily religious. Religion would seem to be an attitude towards life and towards the universe, which is not necessarily dependent on any definite creed or philosophical theory. Without attempting to give any precise definition of religion, we may at least affirm that the most highly developed forms of religion involve an attitude of devotion to the best that is known—an attitude of valuation, of choice, and of striving; and some more or less

[1] On this subject, reference should be made to the two books by Sir Henry Jones—*Idealism as a Practical Creed* and *The Working Faith of the Social Reformer.* Several recent well-known writings dealing with the problems of social reconstruction might also be mentioned.

[2] On the philosophical interpretation of religion in general, reference should be made to the two books by Edward Caird—*The Evolution of Religion* and *The Evolution of Theology in the Greek Philosophers.* For other references Dr. Hastings's *Encyclopædia of Religion and Ethics* should be consulted.

definite conception of what is best would seem to be implied in them. This is especially true of the great Oriental religions, which have had a firmer hold and a more far-reaching influence than any others on masses of mankind, and by which the civilization of the Western world has also been very largely affected. Some reference to the relation of our philosophical position to these religions may here be useful.

The religion that is most nearly akin to a philosophical construction would seem to be that of Brahmanism. It is not altogether creditable to us, as the nation to which the protection of Indian civilization has fallen, that we have done so little towards the interpretation and appreciation of this great religious movement. Here, as in so many other directions, the Germans have accomplished very much more,[1] and have succeeded in absorbing a good deal of what is most valuable in Eastern thought, giving it at the same time a form that appeals more readily to the European mind. Schopenhauer, in particular, has adopted in his philosophy many of the leading conceptions of Brahmanism. He has, however, interpreted it in its most pessimistic sense. It is possible to appreciate Indian speculation without committing ourselves to the pessimism to which it tends. Recent theories of the Absolute in our own country—notably those set forth by Green, Caird, Bradley, Bosanquet, McTaggart, and others —have brought us nearer to some of the Oriental conceptions, but have on the whole interpreted them in an optimistic sense. The last-named writer, in particular, has familiarized us with the characteristic Oriental conception of successive incarnations, and of the illusory character of existence in space and time, but without that conception of absorption in the infinite One, by which these ideas have generally been accompanied in Eastern thought. The constructive attempt that has been made in the present book has a somewhat similar tendency. We have been led to recognize that the ultimate aim of human endeavour is to reach a certain completeness of insight and appreciation which would seem to involve identification with the point of view of the whole. But the

[1] The writings of Professor Deussen contain what is probably the best account of Oriental thought. Of course, Brahmanism contains a great deal that is not philosophical. See Note at the end of this chapter.

whole has not been conceived by us as an infinite One that implies any absolute negation of parts. Rather it would seem that we have to think of it as realizing itself through the parts, which thus retain their relative value, and are not treated as illusory. Still, the general view of the Cosmos that we have been led to take appears to have a certain affinity with that implied in Brahmanism.

The attitude of Buddhism would seem to be, if not a purely agnostic one, certainly more nearly approximating to agnosticism than that of Brahmanism. It does not rest on any definite theory of the universe as a whole; though it is possible that its founder had a more definite theory than that which is recognized by his followers. In the main, it confines itself to pure morality, conceived as being chiefly concerned with the cultivation of individual aspiration; and here it has the same somewhat negative tendency by which Brahmanism is characterized. The suppression of desire and individuality is its most fundamental aim. Its interest is thus less purely philosophical; and it may perhaps be regarded as standing midway between Brahmanism and Christianity.[1]

Christianity, in its original form, appears to have been less definitely philosophical than Brahmanism, and even than Buddhism. It was more purely a human aspiration, and differed from Buddhism in being an aspiration for a kingdom, a social ideal, rather than for individual perfection. But, though without a philosophical foundation—perhaps even *because* without a philosophical foundation—it undoubtedly lent itself pretty readily to philosophical interpretations, especially those supplied by Platonism and kindred points of view. Like the other great religions, it aims at a perfection which is conceived as being attainable by man; but this perfection is thought of in a more positive, because in a more social, way than it is by Brahmanism or Buddhism. It is to be reached by love, rather than by a lonely quest for tranquillity or identification with the Infinite. It thus begins by attaching value to the parts, as well as to the whole, to the imperfect as well as to the perfect. If this may be taken

[1] The account of Buddhism that is given by Professor Rhys Davids is probably the best; but the somewhat different view of its underlying significance that is set forth by Mr. Holmes in *The Creed of Buddha* is extremely interesting, and may be true. See also the companion volume on *The Creed of Christ*.

as its essential significance, it is evidently more nearly in harmony with the philosophical position that is here adopted than either of the other great Oriental world-religions. But its lack of a definite philosophical basis has made it more liable than the others to a number of distinct interpretations; and many of the creeds that have grown out of it are pretty far removed from any such views as those to which we have here been led. Still, its emphasis on love, at any rate, is the one essential point that no interpretation can well ignore; and love, it would seem, implies the ascription of value even to that which is not the perfect whole. It attaches, one may fairly say, an unlimited value to the whole and a limited value to the parts, in so far as they approximate to the point of view of the whole. Interpreted in this sense, it certainly seems to be the religious attitude that is most nearly in accord with the philosophical position that has been here tentatively set forth. The fact that it is not, in itself, committed to any definite philosophical theory, and that its founder seems to have opposed himself to rigid creeds, makes it more readily adaptable to the progressive thought of mankind than religions whose metaphysical foundations are more sharply defined.

At any rate, there appears to be no sound philosophical reason for a pessimistic interpretation of the universe; and any religion that adopts a negative attitude towards the life of the parts would seem to be, in its essence, pessimistic. Whatever the future development of the religions of the world may be, we may hope at least that, to adopt the imagery of Goethe's Märchen, Mops and the Canary Bird (meaning, I suppose, the joy of the practical and of the speculative life of mankind) will be permitted to survive. The friendly prophet who "came eating and drinking" may outlast the more lonely and ascetic seers. But all the prophets have their limitations; "there is none good but One"—the Spirit of the Whole (or the Spirit that we may hope is immanent in the whole); and perhaps the final wisdom is not fully attainable by man. If it could be attained, I fancy we should be at the end of things; and we should have to begin afresh. Still, there do not appear to be any definite limits to the possibility of progress.

7. *General Value of a Philosophical Construction.*—The saying of Novalis is well known, that philosophy bakes no bread, but can give us God, Freedom, and Immortality. It may seem to some that philosophy, as here understood, neither provides nor discovers for us any one of these, in the sense in which they are commonly understood. If God is taken to mean a being distinct from the Cosmos, creating and guiding it, it would seem that the existence of such a being is neither established nor rendered probable. But, as Mr. Bradley puts it, a God who should be capable of existing (i.e. who should simply be one being among others) would be no God at all. What we have been led to regard as at least probable is that the conception of the Good is the guiding principle in the structure of the whole, and that this is apprehended by a conscious being or beings—perhaps essentially and in the end by all conscious beings. Similarly, if we are to understand by Freedom the complete independence of individuals, as against the general structure of the Cosmos, it does not appear that this can be reasonably maintained. Choice is guided throughout, it would seem, by the apprehension of the Good. But the importance of that apprehension, and of the struggle towards it in the individual life, seems to be made sufficiently apparent. Immortality, in the sense of the indefinite persistence of each individual consciousness, has not been rendered probable. But some grounds have been given for believing that each individual has an eternal place and significance in the structure of the whole; and that the transience of particular phases of conscious life does not mean their complete extinction, but rather their absorption in some larger forms of consciousness. But even these results can only be set forth in a very tentative fashion. What I am inclined to claim for philosophy is not that it provides us with any ready-made doctrines, on these or on any other subjects (rather, in philosophy, every dogma is a heresy), but that it enables us to take a general survey of the totality of our experience, and to see clearly, as indicated in the foregoing sections, that we have some right to hope and a still more manifest duty to strive. It does not supersede other forms of knowledge. Even with reference to those large issues that have just been mentioned, we may have

to wait for evidence of a more empirical kind, before we can claim to have any definite knowledge. It is not, as Hegel so strongly urged, the business of philosophy to provide us with any kind of cheap edification. Yet, like other forms of inquiry, it aims at finding some satisfaction for fundamental human needs. It does this by at least enabling us to see where the chief problems that present difficulties to human thought and action are to be found. Some of the difficulties it either definitely removes, or gives some ground for regarding as not absolutely insuperable. Others, perhaps as great, still remain; but the possibility of solving some of them gives us confidence in looking forward to a more successful treatment of the rest. "Philosophy," as Mr. Bradley says,[1] "always will be hard, and what it promises even in the end is no clear theory nor any complete understanding or vision. But its certain reward is a continual evidence and a heightened apprehension of the ineffable mystery of life, of life in all its complexity and all its unity and worth." It leads us to an ultimate mystery, and does little more than hint that there may be a solution of it. It thus leaves the way open for the suggestions of poetry and art and the aspirations of religion, and perhaps also for investigations of a more empirical character; and it helps to encourage both intellectual and practical endeavour. And so it may be said to leave us as its last word that of Goethe's sages—"Wir heissen euch hoffen." It may be difficult to give any sharply defined form to the substance of our hopes, and still more difficult to base them on any assured foundation; but the degree of order that we find in the system within which we live yields at least some ground for the conviction that there may be a still more perfect order in the whole of which that system appears to be a fragment. But some kinds of order, it would seem, have to be created by conscious effort. To discover order and to create order are, I believe, the highest functions of humanity. We can gradually increase our knowledge and our insight, and we can gradually make life more sane and more beautiful; and there is no real reason for supposing that there is any absolute limit to the progress that may thus be made. But the Cosmos, it would

[1] *Essays on Truth and Reality*, p. 106.

appear, is extremely complex. We can do little more than guess at its structure, and our guesses may be pretty wide of the mark. Nevertheless, it is worth while to try.

NOTE ON RELIGIONS

The brief statements in this closing chapter relating to some of the leading types of religion are, I am well aware, subject to a good deal of question. Only those that may be regarded as world-religions have been referred to, and even these only so far as they have a philosophical character. But some of the statements even about these may very well be erroneous. I have assumed, for instance, that Brahmanism has a close connection with the philosophical conceptions that are suggested in the Upanishads and developed by the Vedantists. Some recent writers are inclined to deny, or at least to minimize, this connection.[1] There is, of course, always a considerable difference between the popular forms of a religion and the philosophical conceptions by which it is interpreted; and in some cases a great distinction has to be made between the teaching of the founders and the doctrines of their followers. Other religions than those specially referred to might have been noticed;[2] but almost all the deeper religions seem to be traceable to Oriental sources. My object here has only been to indicate the general way in which religious conceptions of human life and its place in the Cosmos are related to attempts at a philosophical construction.

[1] See especially the article on "Brahmanism" in the *Encyclopædia of Religion and Ethics*.

[2] E.g. the interpretation of the Jewish religion in the Kabbalah. On Greek religion, Mr. Cornford's book, *From Religion to Philosophy*, is highly instructive. Inquiries into the more primitive forms of religion, such as those contained in the well-known works of Sir J. G. Frazer, do not appear to have much direct bearing upon philosophical conceptions.

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